

Visit of American Electrochemical Society to South Will Have Far-Reach-
ing Effect Upon Nation's Industrial Life and War Activities

Manufacturers RECORD



An Exponent of Americanism

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The Most Amazing Revelation of National Depravity in Human History

For its own aggrandizement Germany, after years of preparation, deliberately entered upon a war to conquer the world. Its leading business men were repeatedly called into consultation with the Kaiser, and in consideration of the promises made by him and the military leaders of Germany that they would be able to loot the world and enormously enrich themselves if they would uphold the Kaiser's proposed war, these men literally sold their souls to the devil, and for personal profit pledged their hearty co-operation in a war which they knew would mean the death of millions of soldiers, in a war which would mean sorrow and woe such as the world had never known. They entered into this unholy compact with a distinct promise from the Kaiser and the military clique that within one year from the beginning of the war they would be able to reap the enormous profits which were promised to them, and dominate the trade of the world, as Germany proposed to dominate the nations of the earth.

In all human history there is no record so damning and damnable of a nation which definitely committed itself to murder, to outraging, to pillaging, to all the horrors of a world war, for the individual profit of its business men and the aggrandizement of its military power.

This is the blackest story in human history. It indicates a degree of moral depravity of the whole nation which found a fitting expression in the fearful crimes in Belgium and France upon women and children, upon churches and cathedrals, and upon all civilization wherever the accursed army of these freebooters and looters and outragers and would-be world conquerors have marched.

And now that these murderers and outragers and world robbers and looters find themselves balked, and realize that civilization is greater than barbarism, that honor is greater than dishonor, that an enraged and outraged world is making impossible the carrying out of their plans for highway robbery and murder, plans deliberately entered upon after years of study, efforts are being made in many directions, through pro-German activities, and in other disguised ways, to raise the cry of peace; and here and there suggestions are seen that the Kaiser was forced into this war by Prussian militarism, hoping in this way to create a sentiment in favor of saving him from the gallows or the firing squad.

It behooves every honest-hearted man and every good woman on the face of the earth to set their faces against this peace propaganda, and to vow before man and heaven that there shall be no talk of peace until the armies of the Allies—and this, of course, means our armies with the other Allies—have marched through Germany and Austria and by their presence have proved to these nations that right is greater than might; that righteousness is greater than unrighteousness; that the heaven of prosperity based on integrity and honor is better than the hell created by the baseness and the villainy of Germany in which all of its people, from the Kaiser to the lowest of its peasants, united for the purpose of looting the world, for their individual enrichment, and the domination and the damnation of the world under German rule.

Any man in this country, or in that of our Allies, who thinks peace on any other terms than the unconditional surrender of Germany and its allies, who thinks peace except on the basis of death to those who have brought this fearful war upon the world, who thinks peace upon any other basis than a penalty through the indemnities imposed upon Germany and its allies which will tax to the utmost of their ability for generations to come, will be a curse to civilization and prove himself to be without moral backbone, without honesty and integrity of character. It matters not where the suggestion of peace without penalty may appear, it matters not in what devious ways it may crop out in church circles, in political circles, in newspapers or in public life—he who yields to the thought of peace, except a peace based upon the righteous destruction of Germany's power, and the righteous punishment of the criminals who have blackened the earth with their crimes, is a weakling, a coward in thought and in act, and is indeed a pro-German, and should be spurned by every man who regards honor and integrity and womanhood.

Should we yield to suggestion for peace which Germany will soon be putting forth in many directions, as it seeks peace without penalty, we would be putting a premium upon crime, upon barbarism and upon outraging, a premium upon the work of the highwayman and the looter, a premium upon the moral degradations of the German business men who deliberately, after years of study, pledged their co-operation to a war for world conquest, bribed thereto by the promise of great individual profits.

This country needs now to drive home into every mind in America the conviction that there should be no peace except a peace dictated by America and its Allies in Berlin and Vienna and Constantinople; and that this peace shall only be considered when these countries have been beaten to their knees, when they sue for peace on our terms, of the death penalty for the leading criminals and an indemnity in money which to the extent that money can be made to do so will repay to Belgium and France and Servia and Roumania and Italy, all of the wreck and ruin which has been wrought; and which shall repay to England and America the full amount of money expended in putting down these highwaymen, these freebooters, these pirates, these outragers, these would-be world looters, these thieves and scoundrels who have murdered millions, who have sorrowed hundreds of millions merely for their own individual financial profit. By the side of what they have done Germany seems infinitely superior to hell itself in devilry and to have usurped Satan's power.

Has Heaven made peace with Hell? If not, then let us not for one moment think of making peace with unpunished, unrepentant and undestroyed Germany.

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BRANCH OFFICES

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Death to Hohenzollerns is as necessary as death to Hohenzollernism.

Millions will have died, and hundreds of millions suffered untold agonies, in vain, unless we utterly destroy Prussianism, hang or shoot the guilty leaders and compel Germany and its allies to pay the full financial cost of the war.

Sentimental pity for depraved Germany when beaten to its knees would be on a par with neurotic sentiment in behalf of the murderer caught red-handed in the act, or for the lecherous rapist who outrages civilization in the destruction of womanhood.

The pro-German is a pro-Hellite, an accomplice with murderers of innocent women and helpless children.

NO LIMITATIONS ON REPUBLISHING MATTER FROM OUR COLUMNS.

THE Knoxville Sentinel recently wired to the MANUFACTURERS RECORD as follows:

Kindly wire our expense if it is agreeable to you for us to use in full page advertisement your editorial headed "For God's Sake Hurry Up," in issue of March 28. As you understand, we will give you credit for this in advertisement. We assure you in advance our appreciation.

We merely publish this dispatch to reiterate that anything which appears in the MANUFACTURERS RECORD can be republished freely and without question by any paper in the country, or in pamphlet form, or otherwise, if it can be made to help in arousing this nation to the great war and to the supreme duty of fighting to the utmost of our strength. All we ask is that the usual credit should be given.

A number of business concerns have recently freely used some of the editorial matter in the MANUFACTURERS RECORD, in full-page advertisements, in the interest of Liberty Bonds and Thrift Stamps, giving the usual credit for the matter taken from the MANUFACTURERS RECORD. This is entirely agreeable to us. If our exchanges can induce local advertisers to use any of this editorial matter in regard to the war as copy for advertisements to stimulate and stir the local people to the importance of prompt subscription to Liberty Bonds, to Thrift Stamps, to the Red Cross or Y. M. C. A. work, they are at full liberty to do so.

We repeat, therefore, what we have said before, that anything published in the MANUFACTURERS RECORD can be republished freely and fully, and if it pertains to the war we shall be more than glad to see it used wherever it can possibly help to arouse the nation to the tremendous issues at stake.

Railroad Industrial and Agricultural Development Work in South and Southwest Essential to Nation's Life.

VERY wisely the Canadian Pacific Railroad, even in this time of war, is advertising widely in American papers to call attention to the resources and the attractions of Canada. But while this is being done by Canada's great railroad, American railroads are being urged to discontinue all work which looks to increasing their passenger travel or developing the agricultural and industrial resources of their territory.

It is possible that in some respects American railroads may have misconstrued the thought of the Railroad Administration, for it seems impossible to believe that after due thought broad-minded Government officials would for a moment suggest the lessening of the activity of railroads in the rounding out of the industrial and agricultural potentialities of the sections tributary to them. We can readily understand that under Government control it may be desirable to consolidate ticket and freight offices and leave undone many things which individual roads in the past found it necessary to do to create passenger and freight traffic. But we cannot for a moment believe that it would be wise for any railroad, especially any in the South or Southwest, for one moment to lessen the activity of its agricultural and industrial department in bringing about a larger utilization of the great resources of the South and Southwest.

It would be folly, of course, for railroads in Pennsylvania or other eastern sections, where unwise and uneconomic industrial development has brought about a larger creation of freight than it is possible for existing roads to handle to advantage, to seek to increase industrial or agricultural activities on their lines. But the nation's very life may depend upon the utilization in the largest way possible of the great resources of the South and Southwest for the production of iron and steel and chemicals and munitions, and many other lines of work.

Even more pronounced is the need for the utilization of every available acre of land in the South for increasing food production, and if any Southern railroad should be unwisely led or misled into abandoning its work for industrial and agricultural activities, not merely the South, but the nation would be greatly injured.

The South alone can be counted upon to make any great increase in the production of grain and of meats, and this fact must be constantly impressed upon thousands and tens of thousands of people in the North and West who could be drawn into the South and become food producers in this great crisis.

It is admitted by every thoughtful man that a serious blunder was made years ago when the iron and steel industry was concentrated so largely in the Chicago-Pittsburgh-Atlantic coast district. This development far exceeds the ability of existing roads to handle the traffic. Increased rolling stock will help, but will not meet the situation. There can be no adequate measure provided to take care of the vast traffic of this territory except by increased mileage, as well as by increased rolling stock. It is therefore becoming every day more deeply impressed upon the nation that the only solution of this problem is to turn to the South and Southwest the building of plants for the production of munitions and of all the other great war activities in the mak-

ing of iron and steel and chemicals, and the building of ships, and kindred work.

In the light of these facts we trust, therefore, that if the Railroad Administration has for a moment even thought of considering the lessening of the activity of Southern and Southwestern railroads in their agricultural and industrial work that it will quickly and radically change its views on the matter.

In order to bring this subject directly to the Railroad Administration the editor of the MANUFACTURERS RECORD recently presented the whole subject from this national standpoint in a letter to Mr. John Skelton Williams, Comptroller of the Currency and associated with Mr. McAdoo in the handling of railroad matters. With Mr. Williams' permission we are publishing the letter. It is as follows:

Baltimore, Md., April 30.

Hon. John Skelton Williams,
Railroad Administration,
Washington, D. C.:

May I claim your attention for a few moments to emphasize some of the statements that I made to you on this point? And bear in mind that in these war days I am discussing the South wholly from the standpoint of the nation's welfare, putting aside every thought of sectional welfare other than that which bears on the nation's life.

The fearful congestion of Eastern railroads must continue to grow worse rather than better, so long as we continue to try to force all traffic of the great West through the narrow spout of the funnel of the Pittsburgh, New York, Philadelphia and Baltimore mouth. The great West gathers and pours into the funnel an enormous traffic, and our uneconomic railroad and industrial development tries to force this through the narrow spout of the funnel, bringing inevitable congestion.

For years I have sought to point out to the iron and steel people of the country, as well as to the railroads, the inevitable outcome of this situation. We produce in Pennsylvania about one-half of the steel output of the country, and the whole Pittsburgh iron and steel district is overcrowded and overdeveloped for existing railroad facilities. Every additional manufacturing plant built anywhere in that district for the production of munitions of war or iron and steel only intensifies the situation and adds to the congestion. The welfare of existing plants and of the nation itself makes unwise the building of other plants in that section.

The well-rounded development of the nation for war making as well as for peace times makes absolutely necessary the transference into the South and Southwest of great industrial activities to meet the needs of the nation for added output of iron and steel and munitions, and all of the great industries connected with war work.

Some months ago, through the efforts of the MANUFACTURERS RECORD, the American Electrochemical Society, representing the foremost electrochemists of the United States, whose work is absolutely vital in the production of the metals needed for war, agreed to hold their annual meeting in the South. They are now in that section, with a member of our staff on the committee of arrangements looking after the trip. These men are tremendously impressed with the South and with its almost limitless possibilities for the production of the metals and the chemicals needed in all war work, and for the development of hydro-electric power, without which electrochemical industries could hardly be established. It was wholly through the work of this office that these men, most of whom had never been in the South, were persuaded to hold their annual meeting in that section. Through the co-operation of Mr. McAdoo, Mr. Markham and the Southern Railway a special train is being used in order that the delegates may hold all of their meetings on board the train and travel with the least possible delays. In its far-reaching effect I think this is the most important body of men we have ever been able to induce to hold an annual meeting in the South. Their visit to the South has been treated in all of our correspondence not as a matter of sectional interest, but as a matter of national welfare, and we have urged them to make this trip in order to see how the utilization of Southern resources might help to win the war.

You will remember that for some years I have personally urged upon Judge Gary and the other directors

of the Steel Corporation that the vast property owned by that company should be more fully utilized and that a shipbuilding plant should be built on the Gulf. Both of these things are now being done, and I am quite sure the constant correspondence with Judge Gary and all the officers of the Steel Corporation and the constant reiteration through the MANUFACTURERS RECORD of the necessity of doing this was largely influential in bringing it about.

The Steel Corporation is spending about \$20,000,000 in the enlargement of its Birmingham plant for the production of steel for shipbuilding, and is spending about \$15,000,000 in the construction of its Mobile shipyard. This, however, is a mere bagatelle to what should be done in the iron and steel development of the country. Yesterday I received from Judge Gary a letter which he sent to every member of the Iron and Steel Institute, to the effect that the Government's needs for steel were so great that he was asking every member of the American Iron and Steel Institute to pledge the output of his plant wholly to the Government in preference to private work. This indicates the necessity of still further enlarging the production of iron and steel, and there is no other place where it should be done other than in the South and Southwest, for every additional furnace built on the Lakes or in Pittsburgh adds to the burden of transportation and intensifies existing congestion on railroads, which even the increase of cars and of locomotives will not overcome.

It is, therefore, a matter vitally important to the nation's life, and thus to civilization, that all of the facts bearing on the resources of the South should be constantly emphasized, and that the railroads of the South should be encouraged to continue the work of their industrial departments to make known the resources of the South for the many manufacturing interests which must be established in order to meet the actual needs of war work. A discontinuance of these industrial departments by Southern roads would be a disaster to the nation. The South could stand it infinitely better than the nation as a whole.

Turning from the industrial situation to the food outlook. Food famine is treading very close upon the heels of the world. For years our food production has been steadily declining in proportion to our population, and with the great world war withdrawing from their usual pursuits about 80,000,000 men, with the destruction of livestock and of agricultural activities in Europe, there is a shortage in the world's food supply which is desperately dangerous. Our own country, standing alone, faces a food shortage which threatens to bring about such high prices as to cause food riots and socialistic agitation of the rankest kind. I believe I am safe in saying that, humanly speaking, it is impossible to meet this condition in any other way than through the larger development of food production in the South. The West has practically reached the limit of its wheat and its corn production. The corn crop of last year, notwithstanding all the efforts put forth to increase the acreage, was but a few million bushels larger than the crop of 1912, and in food value was hundreds of millions of bushels short, because about 60 per cent. of the West's corn crop was almost ruined by early frost, making the corn soft and available only for immediate feeding of livestock.

Despite all the efforts made to increase wheat acreage in the West, there has been but little gain, and of the entire increase in the winter wheat acreage this year over the preceding year, amounting to 1,600,000 acres, the gain in the South alone was 1,000,000 acres.

There are vast areas in the South which can be opened up for the cultivation of corn and other grains and for increased livestock raising. Florida, which now produces 50,000 carloads of foodstuff per year for shipment to the North and West, could with increased population produce ten times as much. Eastern Carolina, for instance, is a virgin field where reclaimed or drained swamps and overflowed lands are producing enormous crops of corn and proving to be one of the best regions in the world for cattle and hogs.

Similar conditions exist in all other Southern States. There are in the South about 50,000,000 acres of overflowed land, much of which is being rapidly drained, and which properly cultivated could be made to produce about \$5,000,000,000 worth of foodstuffs annually. The importance of bringing population from other sections, which have been overpopulated, into the farming regions of the South cannot be overestimated. Tens of thousands of men in other sections who cannot engage in war work could to their own benefit and to the nation's welfare take up farming in the South.

All of these facts need to be emphasized continuously and as impressively as possible by every railroad in the South, and this work should be done by the railroads because they have been at it for years and have already achieved splendid results. To disorganize their immigration and agricultural work would be as disastrous as to disorganize their industrial work.

I can fully understand the desirability of concentrating the passenger and freight offices of railroads in order to lessen expense, but to lessen in any way or to minimize in any way the agricultural and industrial work of Southern railroads would be a mistake of such far-reaching importance that its magnitude cannot be adequately understood by those who are not fully cognizant of the food situation, with the overcongestion of the railroads in the East and of the necessity of developing the industrial activities of the South and Southwest which bear directly upon producing the things needed for the winning of the war.

I know that you will acquit me of considering these questions from any narrow Southern or individual point of view. I am looking at them from the vital relation which they bear to the nation's ability to fight and to feed ourselves and our Allies.

May I not, in view of the supreme importance of these questions, ask you to bring them to the attention of Secretary McAdoo and others connected with the Railroad Administration in such a way as to make certain that they will give a careful study to these facts? I am stating facts mildly, for they could be put very much stronger, and I am stating them based on a study of the agricultural and industrial potentialities of the nation extending back over the last 40 years, and I am pressing them upon your attention with a tremendous realization of what they mean to the life of this nation.

Very truly yours,

RICHARD H. EDMONDS, Editor.

In reply to the foregoing we have a letter from Mr. Williams, in which he said:

The Railroad Administration, as far as I am advised, have not ordered the letting up or discontinuance of those departments of the railway companies which have to do with agricultural activity or the stimulation of farm work, etc. It is, however, probably that competitive work, looking to the removal of industries from the line of one railroad to another may be cut out or lessened.

The suggestion in Mr. Williams' letter about competitive work of railroads, looking to the removal of industries from the lines of one road to another, seemed to require a statement in reply, since there has not, we believe, for many years been any effort made to remove industries from one section to another or from one road to another. That phase of industrial promotion work by railroads ended a good many years ago, and what railroads have since been doing is to help to create new industries to utilize the raw materials of the sections tributary to them. Therefore, in reply to Mr. Williams we wrote as follows:

Baltimore, Md., May 3.

Hon. John Skelton Williams,

Railroad Administration,

Washington, D. C.:

Dear Mr. Williams—Acknowledging the receipt of yours of May 2. Let me stress very strongly the point that there has not, so far as I know, for some years been any effort by railroads to secure the removal of established industries from one section to another, or from one line of railroad to another. I should say that more than twenty years ago the South entirely abandoned any idea of getting industries transferred from other sections to the South. The entire industrial fight of railroad and community work has been to create new industries, and not to transfer old industries.

There is, therefore, absolutely no competitive work whatever between railroads in trying to transfer industries from one road to another, or from one section to another. The whole situation as it relates to the South and the Southwest, and thus to the nation, is that there are limitless resources as yet absolutely unutilized where new industries must of necessity be established for the welfare of the nation, or else the nation will suffer.

For instance, I have lying before me at the moment a letter just received from a leading business man of Tennessee referring to the visit of the members of the American Electrochemical Society, probably the most distinguished body of experts in the United States, in which he says:

"I want to say a word of appreciation to you personally for the great service, among the countless others, you have done the Appalachian South in bringing about the visit of the Electrochemical Society."

"I think it will be unanimously agreed at Kingsport that this was the most satisfactory day in our history. This splendid body of men, gentle, courteous and cordial in every way, and with a lively interest in the things that are being done and the possibilities for future development, have left an impression upon our town that will not soon be forgotten, and we fully believe for many years to come the good results of this trip will be felt among every class of the thousands of vigorous people who live in the great section covered by the visit of this society."

The members of this society are in the South for the purpose of studying its advantages for industries for the making of things produced by electrochemistry, and I do not suppose that there is a single one of them who for a moment has ever thought of transferring or relocating any existing industry.

Let me, therefore, urge upon you earnestly and vigorously that the railroads have not for years been seeking to remove industries from one road or from one section to another, but to create industries entirely new and of limitless value to the country. I feel, therefore, any change from this system would be a national disaster.

Very truly yours,

RICHARD H. EDMONDS, Editor.

TEXAS SENDS WORD TO ALLIES IT WILL USE NO WHEAT TILL NEW CROP IS HARVESTED.

TEXAS, with the bigness of heart with which it does all things, matching the bigness of the State, has voluntarily agreed to abstain entirely from the use of wheat flour until June 1, when the new crop is expected to be ready, or longer, if necessary.

Mr. E. A. Pedan, Federal Food Administrator for Texas, in a letter to Senator Sheppard calling attention to this action, said:

I feel sure you will be proud of your State in connection with its voluntary offer to abstain from the use of wheat flour for a period of 45 days, effective today, until June 1, and longer, if necessary. I telegraphed this information to Mr. Hoover Saturday afternoon and requested him to cable same to General Pershing, whom I had the honor of knowing when he was stationed in Texas. I thought this good news would be encouraging and give renewed vigor to our boys in the trenches in France.

This was not a hysterical movement, but one which the people of Texas were anxious to undertake. I did not make the request. The offers kept coming in unsolicited. Now, I feel that the Lone Star State has done a great thing and is setting a wonderful example to the balance of our nation. Surely this ought to make Mr. Hoover's work in reference to flour conservation considerably easier.

How many other States or communities will voluntarily take similar action and advise the United States Food Administration so that the word may go across the water to the people of France, to our men in the trenches and to the suffering people of England, Belgium and Italy, that we are pledging ourselves to do entirely without wheat flour so long as there is a shortage of wheat for the needs of the Allies and our fighting men?

From the beginning of this movement the MANUFACTURERS RECORD has said that we should not only be willing to divide the last crust with our Allies, but that we should be willing to give the last crust to our Allies, and depend upon other foodstuffs for ourselves, for they are fighting our battle, and for three and one-half years they have borne the fearful brunt of Germany's war upon the world.

It has been reported that some people have complied with the regulations of the Food Administration in buying an equal amount of substitutes with every purchase of flour, and then throwing these unopened packages of substitutes in the garbage can, thus entirely violating the spirit of the order, content only if they can secure all of the flour they need without regard to the cost. There are cases where health compels the eating of wheat bread, and where other substitutes cannot be used. In such cases people are justified in using wheat flour, but where flour is consumed merely to gratify the appetite in preference to bread made of meal or other wheat-flour substitutes, there is a disregard of the situation which equals that of the greatest slacker in the war. And those who throw away these substitutes are guilty of a crime, and should be punished to the extreme.

Texas, in this voluntary determination not to consume wheat flour is doing what a number of other communities have done, but we would like to see this spirit of sacrifice so general throughout the entire country that it might be made a matter of public record, and thus give encouragement to the men in the trenches and to our Allies in Europe.

PRO-GERMAN INFLUENCES.

A LEADING business man, having had long experience with pro-German activities in this land and other countries, in the course of a personal letter to the MANUFACTURERS RECORD, said:

"The universality of German influence in this country is terrible and is exerted in the most subtle ways. The pro-Germans, for one thing, are active in the invention of seemingly worthy endeavors of a patriotic character, thereby managing to grasp control of many kinds of work into which the poison of mis-direction and delay is injected. I avoid the best-winged angel when I discover the German ancestry in it.

THE MOST DAMNING REVELATION OF GERMANY'S TURPITUDE EVER PUBLISHED

"TURPITUDE"—CENTURY DICTIONARY DEFINITION: INHERENT BASENESS OR VILENESS;
SHAMEFUL WICKEDNESS; DEPRAVITY.

August Thyssen, one of Germany's greatest steel manufacturers, has made a revelation of Germany's official and individual perfidy and turpitude that is of more importance than all the diplomatic revelations now coming to the front, which have stamped Germany as the greatest criminal in history.

Herr Thyssen is personally known to many of the leading iron and steel men of America. Some years ago, with other European iron manufacturers, he attended a meeting in this country and was esteemed by his acquaintances as a man of supposed high integrity. He makes a revelation which fully confirms all that Otto H. Kahn said when he declared that the whole German people had sold their souls to the devil for the promise of material prosperity through militarism.

Herr August Thyssen, without even an indication of any recognition of the deep damnation of his own character thus revealed, in a recent publication tells of a number of meetings from 1912 to 1914 in which Emperor William promised great financial profits to the leading business men of Germany if they would uphold him in a war upon which he desired to enter for controlling world trade. Thyssen admits that in consideration of his co-operation he was explicitly promised, as a gift, 30,000 acres of land in Australia and the loan of money with which to develop it. This promise, made by the Chancellor, was confirmed by the Kaiser himself, and though Thyssen was somewhat skeptical at first, he made the bargain, as did the other business leaders of Germany. And now realizing that the bargain cannot be filled, he is telling these facts with a view to letting the German people understand that the war was started by the Hohenzollerns for the maintenance of their autocratic military power.

Thyssen and the other business leaders of Germany deliberately entered into this bargain, and in discussing it he says:

"Every trade and interest was appealed to. Huge indemnities were, of course, to be levied on the conquered nations, and the fortunate German manufacturers were, by this means, practically to be relieved of taxation for years after the war. * * * The Emperor's speech was one of the most flowery orations I have ever listened to, and so profuse were the promises he made that were even half of what he promised to be fulfilled, most of the commercial men in Germany would become rich beyond the dreams of avarice."

And for these promises of looting other countries, regardless of the fearful cost in human lives, these business men of Germany, rotten-hearted as this revelation shows them to have been, made the bargain. This revelation must amaze even those who thought they had sounded something of the depths of this moral depravity, this turpitude of the German people. It is doubtless the most amazing revelation in all human history of a definite bargain to murder millions of people and bring untold woe upon the world for the express purpose of personal profit. In the light of such a revelation we can now see why we are fighting all of Germany, and not simply Hohenzollernism. All Germany is guilty, for here were its great business leaders deliberately, after two years of investigation and of meetings with the Emperor, definitely agreeing that in consideration of personal profit they would join the Emperor in entering upon a campaign for the purpose of conquering the world.

Thyssen says that the statements of the Emperor "sounded tempting and alluring," "though there were some who viewed rather dubiously the prospect of Germany being able to conquer the world in a year." There was no consideration apparently as to the awful suffering and woe that was to be brought upon the world, no thought of what this war would mean to all civilization; but they were a little uncertain as to whether Germany could carry out its plans of conquering the world in a year. And then Thyssen says:

"The majority of business and commercial men agreed to support the Hohenzollern war plans." And to this he adds:

"According to the promises of the Hohenzollern, victory was to have been achieved in December, 1915, and the promises made to myself and other commercial men in Germany when our money for the Kaiser's war chest was wanted were to have been then redeemed."

We doubt if in all the records of human history anything matching

this situation can be found. Herr Thyssen, doubtless conscience-stricken at his part, now makes this revelation, but in the entire statement there is not one single evidence of any recognition on his part of the crime which he and others committed, but only a regret that they entered into a campaign because the Kaiser has not been able to fulfill the promises made to them of great personal profit.

Mr. Jos. G. Butler, Jr., of Youngstown, O., one of the foremost leaders of America's iron and steel industry, who personally knows Herr Thyssen, has reprinted in leaflet form this amazing statement. Mr. Butler was probably President McKinley's most intimate life-long friend and is widely known in every part of America.

In a letter to the MANUFACTURERS RECORD Mr. Butler writes:

Thyssen is known to a great many American steel manufacturers. My information is that he was considered the most influential man in the steel business in all Germany. I had very great difficulty in securing the pamphlet. I had a letter from Sir Hugh Bell of England, stating he was unable to locate it in England, and I am told the copy from which my reprint was made came by way of Japan. A reprint of it in the MANUFACTURERS RECORD would be fine, as it would get a good circulation. I am certain Germany will lose upon the battlefield the great victory she won from her people in manufacturing enterprises. I think Germany and a great majority of the Germans will be loathed as long as human beings remember this war. The war was without justification. It seems unbelievable that in the twentieth century there could exist a race of people capable of such savage brutality and with the absence of honor the Germans have manifested. It is up to America to save the situation.

My last information was that Thyssen was in Switzerland, but the Lord only knows where he may be at this time. I think his issuing this pamphlet was because of a guilty conscience, and possibly to urge the German people to get busy and settle the controversy.

In an introductory paragraph to the pamphlet Mr. Butler says:

Herr August Thyssen is, or rather was, the leading manufacturer of steel in Germany; he is well known to practically all the directors of the American Iron and Steel Institute. He visited the United States with the British, French and German Iron and Steel Associations in 1890. He also took an active part in the proceedings held at Brussels in 1911, presided over by Judge Gary, and which was attended by representatives of the iron and steel industry from all parts of the world.

Senator Owen recently presented to Congress a copy of this pamphlet by August Thyssen with an introductory as to Thyssen by Marquise de Fontenoy. In this introduction it was said:

That old August Thyssen should have made so vitriolic an attack upon the Kaiser and against his dynasty as that contained in his extraordinary pamphlet recently addressed to the business men of the vaterland, and which has just reached the United States, may be regarded as a very significant and noteworthy sign of the times.

It is altogether amazing that the pamphlet should ever have been permitted to get into print and into circulation, that any copies thereof should have been allowed to get out of Germany into foreign countries, and also that the bold author should be still at liberty instead of confined in the deepest of dungeons, with all his possessions confiscated to the crown, for he makes no bones about charging the Kaiser in person with extortion and blackmail, with savage persecution of those who opposed his wishes and with willful deceit and fraud.

He likewise sets forth the promises of immense tracts of British and French territory made by Emperor William to German business men prior to the summer of 1914 in order to secure their support for the war which he had in view, Thyssen himself being offered a grant of 30,000 acres in the mining districts of Australia and the entire Dominion of Canada for exploitation by means of a syndicate.

Now, in order to appreciate the importance of the pamphlet it is necessary to explain just who August Thyssen is. If Albert Ballin, Emil von Rathenau, the members of the dynasty of Stumm, the Henckel-Donnersmarcks, etc., are the captains of finance and industry of Germany, then August Thyssen is the captain-general. He may be compared to a sort of blend between Charles M. Schwab of the Bethlehem Steel Works and the late J. Pierpont Morgan, and has often been described as the king of the steel, iron and coal industries of Central Europe.

An ardent advocate of the internationalism of commerce, Thyssen possessed until the beginning of the war huge mines, iron works, docks, and even harbors, in British India, in other English colonial dependencies, as well as in France and in Russia, all of which have been sequestered by the Governments of these three Powers as property belonging to the German foe. If Holland gets dragged

into the fray, in spite of her endeavors to preserve her neutrality, Thyssen's vast system of docks and shipbuilding works at Vlaardingen, near Rotterdam, will likewise be lost to him.

These he secured some seven or eight years ago in behalf of the Vulcan Iron & Steamship Building Co. of Germany, which he controls, and he had given a contract for the construction of an additional large, new harbor, with a depth of 30 feet, also a drydock large enough to hold the biggest battleships, and huge wharves at Vlaardingen, when the war began. The entire property is surrounded by a lofty wall, so as to insure complete privacy. Thyssen's iron works in France were situated at Montigny and at Maisieres, while his docks in France were at Caen. His principal base in Russia, until the summer of 1914, was at Nikolsieff, on the Black Sea, where he owned practically everything in sight.

August Thyssen is about 78.

THE HOHENZOLLERN PLOT.

HERR THYSSEN'S REVELATIONS.

"I am writing this pamphlet because I want to open the eyes of Germans, especially of the business community, to facts. When the Hohenzollerns wanted to get the support of the commercial class for their war plans, they put their ideas before us as a business proposition. A large number of business and commercial men were asked to support the Hohenzollern war policy on the ground that it would pay them to do so. Let me frankly confess that I am one of those who were led to agree to support the Hohenzollern war plan when this appeal was made to the leading business men of Germany in 1912-13. I was led to do so, however, against my better judgment.

In 1912 the Hohenzollerns saw that the war had become a necessity to the preservation of the military system, upon which their power depends. In that year the Hohenzollerns might have directed, if they had desired, the foreign affairs of our country so that peace would have been assured in Europe for at least fifty years. But prolonged peace would have resulted certainly in the breakup of our military system, and with the breakup of our military system the power of the Hohenzollerns would come to an end. The Emperor and his family, as I said, clearly understood this, and they therefore, in 1912, decided to embark on a great war of conquest.

But to do this they had to get the commercial community to support them in their aims. They did this by holding out to them hopes of great personal gain as a result of the war. In the light of events that have taken place since August, 1914, these promises now appear supremely ridiculous, but most of us at the time were led to believe that they would probably be realized.

PROMISES OF VAST CONQUEST.

I was personally promised a free grant of 30,000 acres in Australia and a loan from the Deutsche Bank of £150,000, at 3 per cent., to enable me to develop my business in Australia. Several other firms were promised special trading facilities in India, which was to be conquered by Germany, be it noted, by the end of 1915. A syndicate was formed for the exploitation of Canada. This syndicate consisted of the heads of 12 great firms; the working capital was fixed at £20,000,000, half of which was to be found by the German Government.

There were, I have heard, promises made of a more personal character. For example, the "conquest of England" was to be made the occasion of bestowing upon certain favored and wealthy men some of the most desirable residences in England, but of this I have no actual proof.

Every trade and interest was appealed to. Huge indemnities were, of course, to be levied on the conquered nations, and the fortunate German manufacturers were, by this means, practically to be relieved of taxation for years after the war.

These promises were not vaguely given. They were made definitely by Bethmann-Hollweg on behalf of the Emperor to gatherings of business men, and in many cases to individuals. I have mentioned the promise of a grant of 30,000 acres in Australia that was made to me. Promises of a similar kind were made to at least 80 other persons at special interviews with the chancellor, and all particulars of these promises were entered in a book at the Trades Department.

But not only were these promises made by the chancellor; they were confirmed by the Emperor, who, on three occasions addressed large private gatherings of business men in Berlin, Munich and Cassel in 1912 and 1913. I was at one of these gatherings. The Emperor's speech was one of the most flowery orations I have listened to, and so profuse were the promises he made that were even half of what he promised to be fulfilled, most of the commercial men in Germany would become rich beyond the dreams of avarice.

The Emperor was particularly enthusiastic over the coming German conquest of India. "India," he said, "is occupied by the British. It is in a way governed by the British, but it is by no means completely governed by them. We shall not merely occupy India. We shall conquer it, and the vast revenues that the British allow to be taken by Indian princes will, after our conquest, flow in a golden stream into the Fatherland. In all the richest lands of the earth the German flag will fly over every other flag."

Finally the Emperor concluded:

"I am making you no promises that cannot be redeemed, and they shall be redeemed if you are now prepared to make the sacrifices which are necessary to secure the position that our country must and shall occupy in the world. He who refuses to help is a traitor to the Fatherland; he who helps willingly and generously will have his rich reward."

All sounded, I admit, tempting and alluring, and though there were some who viewed rather dubiously the prospect of Germany being able to conquer the world in a year, the majority of business and commercial men agreed to support the Hohenzollern war plans. Most of them have since wished they had never paid any attention to them.

According to the promises of the Hohenzollerns, victory was to have been achieved in December, 1915, and the promises made to myself and other com-

mercial men in Germany when our money for the Kaiser's war chest was wanted were to have been then redeemed.

CHARGES IMPERIAL BLACKMAIL.

But this is what has happened in reality: In December of 1916 the chancellor, Bethmann-Hollweg, began to have interviews once more with business men. The purpose of these interviews was to get more money from them. Guarantees were asked from 75 business men in Germany, including myself, that they would undertake to subscribe £200,000,000 to the next war loan. I was personally asked to guarantee a subscription of £200,000. I declined to give this guarantee; so did some others. I was then favored with a private interview with Bethmann-Hollweg's private secretary, who told me that if I declined to give the guarantee and subsequently the money I would lose on a contract I had with the War Office. But not only that—I was threatened with the practical ruin of my business if I did not give the guarantee.

I described this demand as blackmail of the worst sort and refused to guarantee a mark to the war loan. Two months later I lost my contract, and the greater part of my business has been taken over at a figure that means confiscation. Moreover, I am not to get paid until after the war, but am to receive 4 per cent. on the purchase price. Every man who declined to promise a subscription to the amount he was asked has been treated in the same manner.

The majority of men, however, preferred to pay rather than to be ruined, and so the Hohenzollerns in the main got their way. But, apart from the blackmailing of men who refused to pay any more money into the Hohenzollern war chest, let us see how the Hohenzollerns' promises are working out. A circular was sent out last March to a large number of business men by the Foreign Trade Department which contained the following suggestion:

SUGGESTING TO GERMAN BUSINESS TO BE HYPOCRITES AND LIARS IN SEEKING FOREIGN TRADE.

"It will be wise for employers who have foreign trade interests to employ agents in foreign countries who can pass themselves off as being of French or English birth. German agents and travelers will probably for some time after the war have difficulty in doing business not only in enemy countries, but in neutral countries. There will undoubtedly be a personal prejudice against Germans that would probably make it difficult for representatives of German firms to do business. Although this prejudice will not interfere with German trade, as it will be merely of a personal character, it will facilitate trading transactions if employers will employ agents who pass as French or English, preferably, or as Dutch, American or Spanish."

So this is the prospect we are faced with after the war. The meaning of this circular in plain language is this: So loathed and hated have Germans become outside their own country that no one will want to have any personal dealings with them after the war.

A large number of businesses are, moreover, being secretly bolstered up with state aid. A condition of this aid is that the owners of the business receiving it shall agree to accept a considerable degree of state control over their business after the war. This is part and parcel of a plan on the part of the Hohenzollerns to get the commercial classes thoroughly into their grip before the end of the war, and so minimize the chances of a revolution.

These men who have agreed to accept aid now for their business, and state control after the war, have received a notification from the Foreign Trade Department to the effect that, with proper organization, Germany ought to recover her pre-war trade three years after peace is declared. Here is the Hohenzollern method of redeeming promises. We are to get back our pre-war trade three years after peace is declared, and to do this we must submit to have our trading transactions controlled and supervised by the state.

Can any German to whom such prospects are held out by the Emperor fail to see that he has been bamboozled and humbugged and fooled into supporting a war from which the utmost he can hope to gain is to come out of it without national bankruptcy?

The quotation Herr Thyssen makes from the circular of the foreign trade department of Germany indicates an appreciation of the feeling in which German agents will be held following the war, "not only in enemy countries, but in neutral countries." The circular says:

It will be wise for employers who have foreign trade interests to employ agents in foreign countries who can pass themselves off as being of French or English birth.

And again:

It will facilitate trading transactions if employers will employ agents who pass as French or English preferably, or as Dutch, American or Spanish.

So already a ray of light is penetrating even the dense German mind as to what will follow after the war, just as sure as the day follows night, and Germany is beginning to understand some of the contempt and ostracism and hatred that will be visited upon everything emanating from Germany, whether in the form of goods or of commercial representatives.

And let there be no feeling of regret that this is the case. It is not only a retribution justly earned, and more, because the German people can never be punished in proportion to their brutality to the helpless

and the sorrowing among the nations who had done them no harm, but it is necessary as a means to prevent their further attempts to build up a power which might, in the future, again become a menace to the peace of the world. Germany has destroyed herself, and her expiation in the eyes of the right-thinking and the right-feeling people of the world will require many years of repentance in sackcloth and ashes, and a full penalty to the farthest stretch of her strength to repay the world for all the deaths and all the financial cost of this war.

Herr Thyssen has given the world a new realization of the character of German business men. They accepted the Emperor's promise of abundant bribes of profits and committed themselves to this fearful war wholly for the purpose of financial gain. They did not enter upon it unadvisedly nor without long study, for the discussions with the Emperor covered two years or more.

No one who has followed the history of Germany for the last 25 years should be surprised that facts such as are revealed in this statement by Thyssen are now coming to the front, for everyone familiar with what Germany has been teaching in its colleges and its universities and in its military life should have realized that Germany was no longer the Germany of olden days, but the Germany which had reverted to the old type of the Huns, intensified by the scientific development of modern days. And of the Huns the International Dictionary gives the following definition or characterization:

"One of a barbarous Asiatic people whose hordes came probably from the Caspian steppes about 372 A. D., and under Attila, about the middle of the fifth century, obtained control of a large portion of central and eastern Europe, forcing even Rome to pay tribute. Their defeat at Chalons-sur-Marne in 451 and the death of Attila in 453 terminated their empire. They were described as of squat muscular figure, flat of face, ugly, cruel, and low in culture. Modern authorities class them as of Turkish, Tartaric or Ugrian stock."

Recent diplomatic revelations in regard to the origin of the war have created a great discussion in this country and abroad, but they are hardly so fully and completely a disclosure of the character of the German people as these confessions of Thyssen.

Prince Lichnowsky, who was the German ambassador to London from 1912 to 1914, after retiring from that position wrote for the benefit of his family archives a clear and comprehensive statement of all that took place in London when Great Britain was trying to prevent this war. The memorandum which he wrote was intended only for his family archives, but he showed it to a few friends, and he says through an "unprecedented breach of confidence" a copy was secured by someone else and it has now been published in Europe as well as in this country. In the course of his memorandum as to the great efforts that Great Britain made to avoid war, he places the entire guilt of the war upon his own country. Such a confession was hardly needed by intelligent men, but it is well that it has been made while Lichnowsky is living, for it throws a flood of light upon the efforts of Germany to bring on this war which directly tallies with the statements made by Thyssen. In the course of his memorandum prepared only for his family archives, but now made public, Lichnowsky in his own language said:

1. We encouraged Count Berchtold to attack Serbia, although no German interest was involved, and the danger of a world-war must have been known to us—whether we knew the text of the ultimatum is a question of complete indifference.

2. In the days between July 23 and July 30, 1914, when M. Sazonoff emphatically declared that Russia could not tolerate an attack upon Serbia, we rejected the British proposals of mediation, although Serbia, under Russian and British pressure, had accepted almost the whole ultimatum, and although an agreement about the two points in question could easily have been reached, and Count Berchtold was even ready to satisfy himself with the Serbian reply.

3. On July 30, when Count Berchtold wanted to give way, we, without Austria having been attacked, replied to Russia's mere mobilization by sending an ultimatum to Petersburg, and on July 31 we declared war on the Russians, although the Czar had pledged his word that as long as negotiations continued not a man should march—so that we deliberately destroyed the possibility of a peaceful settlement.

In view of these indisputable facts, it is not surprising that the whole civilized world outside Germany attributes to us the sole guilt for the world war.

Is it not intelligible that our enemies declare that they will not rest until a system is destroyed which constitutes a permanent threatening of our neighbors? Must they not otherwise fear that in a few years they will again have to take up arms, and again see their provinces overrun and their towns and villages destroyed?

Among other things, Lichnowsky says that he is, suffering because

he did the work of Germany in its determination to bring on this war, and adds that on his part he "sinned against the Holy Ghost."

Our fight is to save this nation from being overrun by the great fighting machine of a country whose instincts are those of the barbarians, whose character as shown by these revelations and by other things is best described by the word turpitude, defined by the Century Dictionary as follows:

"Inherent baseness or vileness; shameful wickedness; depravity."

Our fight is not a war such as this country or any other country of modern times has ever known. It is different from all others. It is a war to save ourselves from utter destruction by this barbarian horde, whose fighting power has been developed through the centuries, and who are now utilizing all scientific methods for the highest possible destructive power of their war machine, and methods of warfare of which we may believe that hell itself would be ashamed.

We have repeatedly stated that this country has not engaged in war to make the world safe for democracy, but that we are in this war from the purely selfish reason to save ourselves from destruction, and we are glad to see that Senator Jones of Washington, in a recent speech in the Senate, made this situation very clear when he said:

We did not go into this war in the interest of the world. We did not go into it in the interest of Europe. We did not go into it to restore ancient boundaries nor to avenge the wrongs of foreign peoples. We went into this war for America. We went into it for the United States. We went into it for our own people. We went into this war to defend and maintain the rights of American citizens, to uphold the nation's sovereignty, and to deserve the respect of the peoples of the earth. All these things are at stake now, and more. The very essence of our national life is in danger.

We went into this war from the most selfish reasons that can possibly exist.

In vain Belgium cried unto us for help. We heeded not its call.

In vain France, and England, and Serbia, and Italy looked to us to see if we would not realize that they were fighting for our salvation as much as for their own.

We heeded not.

Not until we definitely learned that England and France could not meet the situation unaided by us, and that their destruction would mean the immediate movement of Germany's armies upon America, and our realization of the fact that unaided by the Allies we could no more stem the onrush of Germany's great military machine than could Belgium when its soil was invaded, did we enter the struggle. Then, and not until then, and then from purely selfish motives of saving ourselves, we entered the war.

Let us be frank with ourselves, and realize how long and unwisely we waited. Let us realize the desperate danger which confronts us from this horde of barbarians, which demands the utmost stretch of all the energy and all the power of this country to fight, and fight to a finish. We must never count that we have finished until millions of the soldiers of America and of our European allies have given Germany and Austria a taste of the meaning of war by an invasion of these countries and the possession of Vienna and Berlin, and the holding of the territory, without a word in behalf of peace, until the rulers of Germany and Austria responsible for this accursed war have paid the full penalty of their crimes of murder on the gallows or before a firing squad, and the military leaders who have joined them in bringing on this war have shared with them this penalty.

Then, and not until then, should there be one word of peace uttered in this country or in that of any of our allies, and when we have thus made the rulers of Germany and Austria pay with their lives for their awful wreck and ruin and for the millions of men who have died on the battlefield, there should be imposed upon Germany and Austria and Turkey a monetary penalty which to the utmost extent of the power of these countries through the next half-century to pay should be in proportion to the cost which their damnable work has laid upon humanity. Any thought of peace on any other terms, any sickly neurotic sentiment that would save from punishment these, the world's greatest criminals, would be a premium upon crime, and an evidence of moral cowardice, and would for centuries to come weaken the moral standard of all civilization.

Thyssen's revelations show that Germany's business men definitely entered upon this war to loot the world for their own enrichment. Now the world should see that to the utmost farthing they be made to pay the full cost of this war.

[NOTE.—This editorial and the one on the cover page will be reprinted in pamphlet form for distribution throughout the country. We believe the wide reading of these revelations will kindle afresh the patriotism and fighting spirit of America. Possibly every reader could to advantage distribute copies in his own community. Copies can be had at five cents per copy for any number less than 25 and at four cents for 25 or over.]

FLORIDA'S GREAT RESOURCES IN SOIL AND CLIMATE AND ITS SPLENDID PROGRESS.

J. E. INGRAHAM, vice-president of the Florida East Coast Railway Co., in acknowledging the receipt of a letter addressed by the Editor of the MANUFACTURERS RECORD to all of the railroads entering Florida in regard to the great possibilities of that State has given some interesting facts as to the progress which Florida is making and includes Mr. Ingraham's individual views as to the climatic and other advantages of a State which has been so wonderfully blessed. Although not intended for publication, Mr. Ingraham's letter is of such general interest that we have asked the privilege of using it. It is as follows:

Your letter of April 29 reached me, and has been very carefully read. To say that I appreciate your opinion of Florida is a very mild way of expressing my feeling, for I see the State just as you do, though I lack the power to paint the picture in words as you have done. It was my feeling in regard to the varied attractions and conditions of the whole State, which I know thoroughly from one end to the other, that led me, in discussing with Mr. Flagler the advantages of advertising in the MANUFACTURERS RECORD, to advertise the State as a whole and not particularly the East Coast, believing that the development of one side or the middle or the North or the South, would help the East as well.

You can realize what all this means to me when I tell you that in 1876 the first fair ever held in South Florida was held at Fort Reed under the auspices of a few of my friends and neighbors of Orange County, at which time the first vegetables, other than sweet potatoes, that had ever been grown for exhibition in the State, so far as we could then ascertain, were then exhibited. I remember this feelingly, because my wife got a prize of a blue ribbon and two dollars for a cabbage that weighed over 26 lbs. After that the South Florida Railroad became a reality, building from Sanford to Kissimmee—now a part of the Atlantic Coast Line. I was President of it for twelve years and we held annual fairs in Orange County. When I went to the East Coast we started the practice of having an annual county fair in Dade County, which is continued. Now the State has taken it up; almost every county has its annual fair, all of advantage to their respective localities and to the State at large as well, and the State Fair is a very creditable show. I merely state this because in forty-two years' time, or within one generation, fruit growing and vegetable growing in Florida have risen from a mere nothing to large proportions.

As a matter of interest I want to say that at the terminus of our Okeechobee Division at Okeechobee last year there were but 80 acres in cultivation in crops of any kind, but the success of these crops, potatoes, corn, cabbage, etc., was so gratifying that the acreage at Okeechobee (I mean by that within five miles of the terminus of the railway and not including any crops on lands around Lake Okeechobee, on the so-called Everglade land) this year aggregates over 4000 acres—3000 in Irish potatoes, which are doing wonderfully well and 1000 in cabbage and other crops, including cotton. The whole area is planted in corn, except the cotton patches, to follow the vegetable crops. This is indicative of the growth all over that part of the East Coast with which I am familiar. Unfortunately, for reasons which we understand to be the large proportion of old crop potatoes still in market, probably due to lack of transportation facilities, the price of the new potatoes has fallen to \$3. Last year the price was something over \$9, but we are told by conservative, hard-working farmers that there is a profit, even though small at that; nothing like the great profits of last year, but the crop is good, the yield in many instances running to 100 bbls. per acre.

The whole area of the Hastings potato section is also planted to corn, with some fields of cotton, peanuts and castor beans. The people have responded nobly to the request of the President to grow food-stuffs, and unless something serious interferes with the marketing end this movement will continue to increase, unless handicapped by losses in transportation. You can readily realize that everybody can grow their garden stuffs, but that a comparatively small proportion can be sold here at home.

I am having some pictures taken of some of the new fields at Okeechobee and on the newly drained lands on the West Palm Beach Canal in the Everglades, which I think will be of interest to you. They are not for publication, but merely for your personal information.

In regard to your letter: may I use it or any part of it in advertising? It is a wonderful letter and should be productive of an immense amount of good and reach a vast number of thinking people on whom

it ought to make a lasting impression. I am particularly struck with your "P. S." in reference to your ability to live longer in Florida and do more work because it will prolong your years. Bear in mind that the vital principle of life is heat and by moving to Florida this element can be conserved for a very much longer period in a man's life than if it is wasted by the demands of the extreme cold weather of our Northern climate upon his vitality. Referring to the climate of Florida: I was born and brought up in Wisconsin, moved to Indianapolis when a boy, thence to St. Louis and thence to Florida. But I want to tell you that five different times since we have lived in Florida have my wife and I returned to Florida from St. Louis, Indianapolis and other points in the Northwest and the interior of Wisconsin, in the summer time, because the summer climate of Florida was far preferable to that in the interior of the States of the Northwest. Our only trouble is a long season, but the nights are cool and comfortable and the mornings and evenings are glorious.

IMPROVED HIGHWAYS A MILITARY NECESSITY.

THE Pacific Coast Defense League of Seattle, Wash., recognizing the need of a complete system of military highways for the Pacific Coast, and, of course, the need is equally as great for such highways in other parts of the country, is proposing to hold an important convention on the subject. Mr. A. G. Raab, secretary, writing from Seattle to the MANUFACTURERS RECORD, says:

The Pacific Coast Defense League is arranging to have a great convention in Portland May 24 and 25, local arrangements in charge of the Portland Chamber of Commerce. The purpose of the convention is to arouse and crystallize public sentiment to the end that we may secure the passage in Congress, at the proper time, of pending legislation looking to the construction on the Pacific coast of a system of highways that shall be ample for any military eventuality in the years that are to come.

Rear-Admiral Robert E. Peary, President Charles H. Davis of the National Highways Association and other speakers of national prominence will be present. Would it not be advisable and desirable for you to have some prominent person present to take up in this convention, which we honestly believe will be the most important convention on the Pacific coast this year, the important problem which you have published in your magazine January 31, page 73, "Concrete plans to secure Government action on highways improvement during the war period"? We shall indeed be more than glad to offer the facilities of the convention to further your interests.

The MANUFACTURERS RECORD commends the movement of this Pacific Coast Defense League looking to the development of an adequate system of military highways on the Pacific Coast, and it would at the same time urge that the people of the East, West and of the South take cognizance of the fact that improved highways are a military necessity which demand the immediate attention of the country. Without the building of highways on a very large scale and the maintenance of existing highways, motor traffic would be practically impossible, and motor truck transportation is an absolute necessity for the winning of the war. He who in any way whatever delays or halts the improvement of our highways to meet this war situation is an enemy to the country, whether he realizes it or not. Improved highways built in the most substantial manner for the heaviest motor truck traffic, whether the motor truck be five tons or ten tons in capacity, and whether the road be used by one motor truck a day or by a continuous, unbroken straight line of motor trucks, are an absolute necessity and are becoming more and more so every day. However desirable may be an adequate system of military highways on the Pacific Coast, there are still greater reasons for adequate highways throughout the entire section east of the Mississippi River because of the tremendous pressure upon railroads, and because east of the Mississippi River is now concentrated the great iron and steel and munition-making activities of the country.

Following the suggestion of Mr. Raab it seems to the MANUFACTURERS RECORD that it would be desirable for the East and the South and the West to be represented by one or more strong speakers at this highway meeting of the Pacific Coast Defense League.

FARMERS AS WELL AS SOLDIERS MUST WORK FOR VICTORY.

HAVING in mind the winning of the war as the real work before us, Messrs. Smith & Morgan, real estate dealers of Dothan, Ala., have published an advertisement in the newspapers, not about their real estate offerings, but in the form of an open letter of appeal to the farmers of the Southeastern part of Alabama, in which Dothan is located. This communication urges that no effort be spared to raise and conserve food; that careful thought be given to the question whether or not too much cotton is being planted; that the agriculturists should plant every acre possible in food crops, and also that they should produce every pound of meat possible. This is patriotic work, to be highly commended and widely emulated.

It is absolutely essential that our armies abroad and the armies of our allies shall have plenty of food for next winter; their cause is our cause, and we must work for their welfare and support as we do for our own. Hence the admonitions published by these Alabama patriots should be heeded everywhere, as well as in their State.

Besides impressing on farmers the tremendous need to raise food crops, they are also urged to make a vigorous campaign against rats and mice, which destroy millions of dollars' worth of food-stuffs every year, and also to kill off every worthless dog wherever found. "If we do these things," says the letter, "with a whole-hearted sincerity, and our Government brings this war to a successful close, we will experience in the South a prosperity we have never known or dreamed of."

ST. LOUIS RESENTS BEING CLASSED AS UN-AMERICAN.

THE erroneous idea that St. Louis contains so many German and other foreign-born citizens that it can hardly be a real American city is entertained by some people in other parts of the country. To refute this impression, the Chamber of Commerce of St. Louis is issuing a circular entitled "The Truth," which gives some facts and figures bearing on the subject.

Less than 7 per cent. of the population of St. Louis is German-born compared with over 17 per cent. in Milwaukee, over 10 per cent. in Buffalo and 9.59 and 8.34 per cent. respectively in Detroit and Chicago. St. Louis has only 18 per cent. of its population born in foreign lands compared with New York 41 per cent., and Bridgeport, Chicago and Boston 35 per cent. each.

This circular states that one St. Louisan in every 18 is in the service of the United States.

The city went "Over the Top" for every campaign in Liberty loans, Red Cross, and other war work. It is said that St. Louis had the first Food Conservation organization in the United States.

St. Louis has not done more than she should, or as much as she expects to do; but her war record today is one of which any American city could be proud.

TAKE YOUR CHOICE AND BE "HUNG" OR "HANGED."

AN anonymous correspondent, evidently a pro-German, in a letter referring to the editorial suggestion that every man who attempts to retard the fight of the United States against Germany "should be promptly hung," writes to the editor of the MANUFACTURERS RECORD that anyone who "murders" the English language by using "hung" instead of "hanged," should himself be "hanged."

This pro-German critic has something yet to learn. If he will turn to the International dictionary he will find that either "hung" or "hanged" is correct, though preference is given to hanged. But we are perfectly willing that this pro-German and all other pro-Germans shall be "hanged" or "hung," according to whichever word they prefer. We are interested in the act more than the word.

An Illustration of Great Britain's Tremendous War Work As Officially Furnished to the Manufacturers Record.

IN the course of a letter to the editor of the MANUFACTURERS RECORD furnishing some facts in regard to what Great Britain has been doing on land and sea, Rev. J. H. Shakespeare, D.D., secretary of the Baptist Union of Great Britain and Ireland, gives some figures showing how marvelously all Great Britain, but especially how England, has thrown its very life into this struggle.

With over 100,000,000 people in this country, we have been thinking of an army aggregating from one and a half to two million men as a great achievement, but the official figures furnished by the British Publicity Department to Dr. Shakespeare for the MANUFACTURERS RECORD show that England alone has sent into the army of the Empire 4,530,000 men, while the aggregate number of the forces raised by Great Britain amounts to 7,500,000. Today the British army has more than 4,000,000 men on its rolls.

In the course of his letter Dr. Shakespeare says:

The Military Effort.

So far the British Empire has raised armed forces numbering 7,500,000. The proportions contributed by the various parts of the empire are as follows:

England	4,530,000, or 60 per cent.
Scotland	620,000, or 8.3 per cent.
Wales	280,000, or 3.7 per cent.
Ireland	170,000, or 2.3 per cent.
Dominion and colonies	900,000, or 12 per cent.
From India, Africa and the other dependencies	1,000,000

The British Army today has on its rolls more than 4,000,000.

War Office Purchases.

Two hundred and seventy million pounds of manufactured goods and £113,000,000 of raw materials.

Captures Last Year by the British Army in France.

One hundred and sixty-eight howitzers; 68 heavy guns; 437 field guns; 1055 trench mortars, and 2843 machine guns.

The British Lines in France.

In January the British Army in France took over a considerable further section of the French front, so that our front in the west now extends from the North Sea down to a point near La Fere, considerably to the south of St. Quentin. In addition, British troops hold a considerable section of the front in Italy. We have also large forces in Salonika, in Palestine and in Mesopotamia.

I trust this information will be of some service to you, and I also enclose two newspaper clippings about the British Army in Italy and the work of the British Navy which may be of interest and use.

One of the newspaper clippings was a dispatch from Rome in which General Diaz, the Italian commander-in-chief, issued an order to the Italian army enthusiastically commending, in the name of Italian officers and soldiers, the splendid co-operation of France and Great Britain who so promptly hastened to the aid of that country, and in the course of this statement General Diaz said:

Once again we are resolutely marching toward a future which will bring us victory by the side of the magnificent army which the inflexible will of the British people has succeeded in creating and the powerful French armies which know the age-long glory of a thousand battles.

Another clipping contains some statements made by Admiral Jellicoe in regard to the work of the English navy. This clipping is somewhat old, as it was dated on February 21, or more than two months ago, but at that time Admiral Jellicoe stated that between 40 and 50 per cent. of the German submarines commissioned and operating in the North Sea, the Atlantic and the Arctic had been sunk, and that he thought that at the time he was speaking it would be safe to put the proportion of those that had been sunk at least 50 per cent.

Up to the end of 1917 England's mercantile marine, guarded by the British navy, transported overseas, back and forth, a total of 13,000,000 troops and 25,000,000 tons of supplies, with a total loss of life due to enemy attacks of 2700 officers and men. In further discussing this point he is quoted as follows:

One hears so much of what the enemy's submarines did and so little of what our own submarines did. There was never a day when there was a German ship at sea in the North Sea or any other sea outside terri-

torial waters, and therefore our submarines, even if they employed German methods and sank merchant ships at sight, had no targets on which to work. His surface vessels rarely gave them a target, either. Perhaps they came outside their mine fields once a year. (Laughter.) But our submarines were always there, and they were always ready, and well the Germany navy knew it. He wished to disabuse the minds of some people of the impression that our submarines did not attempt to sink enemy submarines, and said that when two periscopes were looking for each other in the millions of square miles of area in the ocean, with a visibility of perhaps 400 yards, they would realize that there was some difficulty in that sort of warfare. But the difficulties were not insurmountable, as the Germans knew.

A few badly-informed people in this country, misled by pro-German activities, have thought that England has not done its full duty to its allies in this great struggle, but no intelligent man not dominated by pro-German thought could for one moment ever have charged England with failing to measure up to the greatness of its past. Any man who has criticized England in this war has done so because he has been moved by pro-German activities.

The pro-German propaganda against England has been carried on for the express purpose of creating ill-will in this country to Great Britain.

Any man who is not pro-England in this war is of necessity anti-America.

SPREAD THE FACTS EVERYWHERE

If your soul is stirred by the awful realities of Germany's barbarism and by the tremendous problems which face our nation in the life and death struggle of barbarism against civilization, as published from week to week in the Manufacturers Record, pass your copy on to others that those who are not subscribers may learn the fearful realities against which our nation is fighting. Let no single copy be wasted. Pass every copy on to some one else and urge them to send it on to others, that in every home the story as given in every issue of what this war means to every man, woman and child in this and in every other land may be fully understood. We ask your co-operation because others say that the wider reading of the Manufacturers Record would be a blessing to the whole nation. Distribute other literature which tells the story of the war, and get your friends and business acquaintances everywhere to think war, to talk war, to pray war until the nation in every fiber of its being thrills to the mighty contest and grapples unto death with the enemies who would overrun and destroy our land. You can help in this way to win the war.

WOULD MAKE GREATER USE OF TEXAS LIGNITE.

THE use of Texas lignite, both as a fuel and for gas making, was especially discussed at the Fourteenth Annual Meeting of the Southwestern Electrical and Gas Association, recently held at Galveston, Tex. Texas lignite fields are of enormous extent, and when practical methods have been worked out for a more comprehensive use of this fuel, the result will be of far-reaching importance. The association appointed a committee to thoroughly investigate the whole question and to co-operate with the University of Texas in research work in this field.

GERMAN HATRED OF ENGLAND IN 1871.

A WAY back in 1871 Laurence Oliphant, war correspondent of the London Times in the Franco-Prussian conflict, was with the German forces, and, although feeling animosity to the French at the outset of hostilities, he learned things about the Teutons and their point of view and aims in European politics which caused him to realize the danger threatening his country because of Prussian envy, hatred and ambition. In his biography, written by Mrs. Oliphant, a letter which he sent from Alencon on January 18, 1871, after telling that ever since the Grand Duke of Mecklenburg had been given a separate command, his letters were dated from that officer's headquarters, he says:

Meanwhile contact with the German armies has not the effect of enlisting one's sympathies in their favor. The official or junker class detests England with a mortal hatred, because they instinctively feel that the institutions of England strike at the root of their various class prejudices and bureaucratic system. * * * I have found it very difficult to get on with the Grand Duke's staff; they are so supercilious and arrogant. * * * The feeling against England among the Germans is increasing every day, and it is amusing to hear them discuss plans for the invasion of England. They have worked the whole thing out. Blumenthal told me he had considered it from every point of view and regarded it as quite feasible. * * * No one was a stronger Franco-maniac than I was, or feared less the German powers, than I did at the beginning of the war, but I confess I have begun to change. * * * The Germans pillage terribly.

How impressively do these remarks of Mr. Oliphant fit in with the writings of the late Henry Winter Davis of Maryland, who, in his widely-known book, "The War of Ormuzd and Ahriman," quoted last year in the MANUFACTURERS RECORD, and which was written twenty years before the Franco-Prussian war, directed particular attention, finding encouragement for us in the fact that England stood at the gate of Europe bristling with opposition to the strengthening of imperialistic power and foreseeing the day when we should fight side by side with British troops in Europe against the onslaughts of autocracy as represented by Prussia and Austria, or else be compelled to fight on our shores without allies an invasion from continental autocracy.

BUY COAL NOW!

IT is the duty of every coal consumer, whether for domestic or manufacturing use, to contract for coal and have it delivered just as promptly as the coal mines can produce it and the railroads handle it. It is entirely possible that there may be a more acute transportation condition next winter than we have had this winter. To some extent that will depend upon weather, but it is certain that the railroads and the coal mines will next winter be crowded to the utmost limit of their capacity. Every ton of coal which is now stored in dwellings or factories will to that extent lessen the pressure upon coal mines and railroads next winter.

Those who do not order coal now will have no ground for complaint for next winter if they do not get their supply. It is not possible for all manufacturers to be as discriminating as they have been in the past in buying coal from concerns with which they have long traded, for it may be necessary to buy coal within the zone area without regard to former conditions. But coal should be bought now and put away for the day of need.

BRISTOL OVER-SUBSCRIBES LIBERTY LOAN BY 50 PER CENT.

THREE days before the closing of the Third Liberty Loan campaign, the Liberty Loan Committee of Bristol, Tenn., announced that city had over-subscribed its quota by 50 per cent. This is a splendid record in itself, but it has all the more merit because the citizens of Bristol over-subscribed its allotment without counting a dollar's subscription from the banks, though the banks did their part in a liberal manner.

CALL THE ROLL OF THE MISSING.

EIGHTEEN professors of German descent or of German birth in American universities and colleges have signed a statement of loyalty to the United States, in the course of which they say:

"We view with abhorrence and condemn without reservation the part which the German imperial government had in provoking or permitting the present world conflict; we disavow and disown the doctrine, subversive of international security and future peace, that international covenants may be set aside whenever it is to the interest of any nation to do so, and we condemn unqualifiedly, as unworthy of the German nation, the various acts of violence in disregard of such covenants. Finally, we express our firm adherence to the political principles and ends for which the United States has entered the war, the vindication of international right, the self-determination of nations, the discrediting of militaristic and imperialistic and the substitution thereof of liberal and democratic ideas and principles of government, and we pledge our unalterable loyalty, our material support and our influence until these ends shall have been attained."

This statement has in many cases been heralded as though it were of importance. But nowhere in it, so far as we have seen, is there any denunciation of the unspeakable atrocities committed by Germany and by the people of Germany. Nowhere is there a word to express abhorrence of the sinking of the Lusitania and kindred acts which have disgraced for all time all that is German in name or thought.

These professors have placed the blame for the war upon German militarism, and upon the German Imperial Government, but nowhere in this statement have they denounced the fact that the people of Germany are upholding German militarism and German atrocities.

While pledging their loyalty to America, they have not avowed as they should have done, an undying hostility to the fearful crimes against all civilization and against individuals committed by Germans in this war.

But are there only eighteen German-born professors in the universities and colleges of America who are willing to go even so far as this much-heralded statement. All honest Americans of German birth should be glad to sign such a statement as this and even a much stronger one. Why are so many of them missing and why are only eighteen names of professors found signed to it? While the statement is good to a certain extent, it is not an open, outright, distinct disavowal of the horrors committed by Germany, and until German-Americans everywhere come out, not only in a statement of loyalty to America, but in expressing their horror of German crimes, they cannot expect to be regarded as sincere.

This point is interestingly presented in a recent letter by Mayor Roy Miller, of Corpus Christi, Tex., who is chairman of the Nueces County Council of Defense. In the course of his letter Mr. Miller called attention to the fact that some American citizens of German birth feel that there is a disposition to encourage mob violence as a remedy for anti-American propaganda. Mr. Miller emphasizes his opposition to mob violence, but in a letter to an American citizen of German birth who had raised the question he reminded the writer of the letter that so long as pro-German activities continue and citizens of German descent do not aggressively fight this German propaganda and openly stand out for America, they cannot expect the sympathy of American people. He said that if these citizens of German birth are really sincere in their loyalty to America they will not stop short of giving tangible evidence by rendering to this country every service in their power and he added:

"This is no time for American citizens of German blood or birth to protest or complain. There are two courses open to them: One is to give expression of their loyalty in deeds rather than in words; the other is to frankly admit their disloyalty, in which case the only safe course for them to pursue is that of requesting internment at the hands of this benevolent Government until the Kaiser and his minions have been given their proper place with his Satanic Majesty in the lower regions.

"Those who are not now for America are against her. There is no neutral ground. That man who is not eager and willing to give this country the full

measure of his devotion and to express that devotion in terms of untiring, enthusiastic service in thought, word and deed, be he native or naturalized, gives aid and comfort to the Kaiser and his despicable purposes and should be considered and dealt with as an alien enemy."

We commend Mr. Miller's position. It is directly in line with what the MANUFACTURERS RECORD has been preaching and we have repeatedly said that German-Americans and Germans living in this country are directly responsible for the ever-growing hostility to everything that is German in name or origin. These people had an opportunity never surpassed in history to render to the land of their birth, to civilization, and to America a service of unequalled value, but they utterly failed, with a few notable exceptions. Had they stood out openly from the beginning and fought Germany's war and Germany's war propaganda, Germany's spy propaganda, and all of Germany's awful atrocities, they would have proven to the world that there was inherent in people of German birth qualities which could make great, honest, God-fearing men in a time of stress stand for right against might. **But to a large extent they cowardly, cringingly, either quietly sided with Germany or else took no active part in behalf of America. They are responsible for that bitter hatred which is rising in this country against Germany and all who stand for Germany in thought or word or deed.**

HOW TEXAS STANDS ON THE QUESTION OF LOYALTY.

THE deep-seated loyalty of the people of Texas is very emphatically demonstrated in an enactment known as the Loyalty Bill, recently passed by the Texas Legislature in special session.

Here is an example that other States might follow to advantage. Incidentally it is an indication of the kind of resistance Texas would have put up against any move to hand that State over to Mexico, as was suggested by Zimmerman in his overtures to Mexico to induce that country to take sides with Germany in this war.

A letter from a Texas correspondent in this week's issue of the MANUFACTURERS RECORD recalls that Germany has been trying to corral Texas at other times in the past. To dispose for all time of any lingering doubts that may still persist in Germanic quarters as to how the people of Texas stand on this question it might be a good plan for Texas to send to Berlin an engrossed copy of the Loyalty Bill, which is given in full herewith:

"Sec. 1. If any person shall at any time or place, within this State, during the time the United States of America is at war with any other nation, use any language in the presence and hearing of another person of and concerning the United States of America, the entry, or the continuance of the United States of America in the war, or of and concerning the army, navy, or marine corps of the United States of America, or of and concerning any flag, standard, color or ensign, of the United States of America, or any imitation thereof, or that of any officer of the United States of America which is abusive in character and calculated to bring into disrepute the United States of America, the entry, or continuance of the United States of America in the war, the army, navy, marine corps of the United States of America, or any flag, standard, color, or ensign, of the United States, or any imitation thereof, or that of any officer of the United States of America, and is of such nature as to be reasonably calculated to provoke a breach of the peace, if said in the presence and hearing of a citizen of the United States of America, shall be deemed guilty of a felony and shall be punished by confinement in the State penitentiary for any period of time not less than one year, nor more than 25 years.

"Sec. 2. Any person, who shall, at any time and place within this State, during the time the United States is at war with any other nation, or nations, commit to writing or printing, or both writing and printing, by letters, words, signs, figures, or any other manner, in any language, anything of and concerning the United States, the entry or continuance of the United States in the war, or of and concerning the army, navy, or marine corps of the United States, or any flag, standard, color, or ensign, of the United States, or any imitation thereof, or that of any of its officers, which is abusive in character or disloyal to the United States and reasonably calculated to bring into disrepute the United States, the entry or continuance of the United States in the war, the army, navy or marine corps of the United States, any flag, standard, color, or design, of the United States, or that of any of its officers, and reasonably calculated to provoke a breach

of the peace if written to or in the presence of a citizen of the United States, or if said in the presence and hearing of any citizen of the United States, shall be deemed guilty of a felony and shall be punished by confinement in the State penitentiary for any period of time not less than one year, nor more than 25 years.

"Sec. 3. Any person, who shall, within this State, publicly or privately, mutilate, deface, defile, defy, tramp upon or cast contempt upon either by words or acts upon any flag, standard, color, or ensign, of the United States, or that of any of its officers, or on any imitation of either of them, shall be deemed guilty of a felony and shall be punished by confinement in the State penitentiary for any period of time not less than one year, nor more than 25 years.

"Sec. 4. Any person, who, during the existence of the war between the United States and any other nation, or nations, shall, within this State, display or have in his possession for any purpose whatsoever, any flag, standard, color, or ensign, or coat of arms of any nation with which the United States is at war, or any imitation thereof, or that of any State, subdivision, city or municipality of any such nation, shall be deemed guilty of a felony and shall be punished by confinement in the State penitentiary for any period of time not less than one year nor more than 25 years.

"Sec. 5. Any person, officer, or any other person may, without warrant, arrest any one violating any section of this act when the offense is committed in his presence, or within his view, or within the view of a magistrate; and in all such cases the officer or other person making the arrest is justified in adopting all the force and measures which may be adopted in cases of arrest under warrant as provided in the code of criminal procedure. Any person, officer or other person, about to make such arrest shall be authorized to require any person violating any provisions of this act to at once desist from such violation and may use all the force and measures which are necessary to cause such person to desist from further violating any provision of this act.

"Sec. 6. Indictments and prosecutions for violations of the provisions of this act may be had in any county where the offense is committed or in Travis county, the State of Texas, and for such purpose venue and jurisdiction is conferred upon the district courts of the counties of the State where such offenses are committed, and on the district court of Travis county.

"Sec. 7. The fact that this is a special session of the Legislature, which can last but 30 days, and the fact that the United States is now engaged in war, and there are many breaches of the peace and other disturbances of public order and safety arising, due to the evils sought to be remedied by this act, creates an emergency and an imperative public necessity, which requires that the constitutional rule, providing that bills shall be passed on three several days, be suspended, and said rule is hereby suspended, and this act shall take effect and be in force from and after its passage, and it is so enacted."

THE NEWSPAPER "AD." A LONG RANGE GUN.

THE manifold advantages of judicious newspaper advertising are amply appreciated, as is testified by the advertising pages of the MANUFACTURERS RECORD, but it is gratifying to now and then hear an unsought word of approval, such as that given by C. E. Martin, cashier of the Citizens Bank of Fort Valley, Ga., at the recent annual meeting in Macon of Group Five of the Georgia Bankers, where he expressed high appreciation of advertising in the paper, because it has the advantage of carrying direct messages to the public. In the course of his remarks he said:

Advertising is the connecting link between demand and supply. We trace advertising back to ancient days, but the proper medium for advertising was not reached until the invention of the printing press.

Advertising is a necessary cost. Local conditions have much to do with advertising and the "ad." for a country bank could not be used for a city bank. Advertising by means of calendars, cards and the like is not a good form, although many banks advertise this way. They do not carry direct messages to the public like newspaper advertising.

This clean cut and positive approval of newspaper advertising has many an endorsement from other appreciative business men throughout the country who realize that the expense of an advertisement placed in a first-class paper is worth many times its cost to the advertiser. Wisely worded it reaches many a potential customer who might without it never have his attention directed to the thing which the advertiser has to offer, and again it often sows seeds which may not germinate immediately, but in due time the results come to him from quarters perhaps which were not considered at first as possible fields for business. The newspaper ad. is a long-range gun which brings home the game.

THE DEMAND FOR STEEL FOR WAR PURPOSES EXCEEDS THE OUTPUT.

At the meeting held last week, some particulars of which were given in our last issue, of many leading iron and steel people with Mr. J. L. Replogle, United States Director of Steel Supply, some startling facts in regard to the need for increased steel output were given by Mr. Replogle.

In his address to the steel men, Mr. Replogle said that transportation conditions are not materially improved in a general way since last winter, though in some places they are better, while in others they are getting worse, and he added:

When we consider the situation as it is today with the wonderful weather conditions and the transportation conditions, we are shuddering when we contemplate the winter season before us.

Referring to the magnitude of the construction operations of the United States Government in relation to war work, he said that the plans of the Government are now 20 per cent. in excess of the total building construction of the United States for the three-year period, 1915-1917, both inclusive. In addition to that, the Government is advancing its building plans for construction far into 1919 and 1920, and Mr. Replogle instanced the Government's plan for building at South Brooklyn alone warehouses, mainly of structural steel, at an expenditure of \$45,000,000, which he said is only indicative of what the Government is proposing to do.

"We need," said Mr. Replogle, "hundreds of millions of dollars' worth of hospitals, and for this purpose the Government is now commandeering summer hotels and trying to save construction work in that respect." But he added: "The United States' construction program is enormous—I think far beyond the impression of almost any of you."

Illustrating this situation, Mr. Replogle pointed out that at the rate of production of steel for the last three months there are already on the books for Government work orders sufficient to take up all of 23 weeks' to 92 weeks' output, according to the character of material needed, and for steel production of all kinds there are now needed 31 weeks' output, at an average of 640,000 tons per week. In addition to this, the Canadian Government and England and France and Japan are urgently calling for steel from us.

"Moreover," said Mr. Replogle, "there are other things coming up. There is a matter involving an enormous tonnage of steel that is yet in a very confidential state and I cannot touch on it, but I can tell you that the Government's program in practically all lines of steel is so far in advance of the estimates which I have seen in the trades papers that if you were all in possession of that information you could readily see the acute necessities of the occasion."

These are but a few of the striking statements made on behalf of the Government by Mr. Replogle in an appeal to the iron and steel producers of the country to push their output to the utmost extent and to pledge themselves that the entire product shall be available for Government work, and he added:

As General Haig says, their backs are against the wall, and the Kaiser is not going to wait, and we are not satisfied to wait on those shells if there is any way of getting those shells. If there is a shortage of fuel, if there is a shortage of ingots, it must fall on the less essential product, and the more essential and direct Government necessities must have such a degree of priority that that material must come. We do not like the expression "doing your bit"; we want you to do your all. It is past the point where doing our bit is satisfactory.

The statements made by Mr. Replogle are indicative of the tremendous plans by the Government for steel, and it is incumbent upon the iron and steel producers of this country to meet the situation to the limit of human power in increasing their output and of rejoicing in the privilege of contributing in this way toward the righteous war of America and of all civilization against the unspeakable crimes of Germany.

THE AEROPLANE SITUATION JUSTIFIES THE DEMAND MADE LAST YEAR THAT INCOMPETENTS AND PROCRASTINATORS BE TURNED OUT.

PRESIDENT WILSON has acted wisely in calling for a full investigation of the whole aeroplane situation. The interests of the nation demand that this investigation shall be rigid and unsparing and that no effort whatever shall be made to keep secret the findings, whether bad or good.

If conditions are as rotten as reported, then the men responsible should be punished to the utmost extent of the law, if possible under a military trial if that would permit them to be shot. To undertake to cover up the situation would be fatal to the best interests of the country, and President Wilson should insist that through a rigid, open investigation the public may learn for itself as to the truth or falsity of the statements which have been made.

If men have been guilty of delaying or profiteering in this aeroplane construction work, the name of every guilty one should be made public and the utmost punishment which can be meted out to them should be enforced, without regard to who they are or what may be their power and position.

On the other hand, it is important that the country should not be swept off its feet by charges until they are proven. The charges are so serious that the investigation must be made promptly and openly so that there may be no possible suspicion of any attempt to cover up inefficiency or fraud.

We trust for the good of the nation that this investigation will prove that the charges are unfounded, but at the best the whole situation shows the wisdom of the demand made early last winter by the MANUFACTURERS RECORD that the Administration should turn out the incompetents and the procrastinators in Washington.

WHY THE "COLONEL HOUSE" BIOGRAPHY IN DAILY PAPERS?

WHAT is the occasion for the "True Colonel House" serial which is dragging its lengthy, syndicated way through the various newspapers throughout the country that have secured publication rights from the Evening Post of New York, in which it originally appeared?

Is it German propaganda work of some subtle sort, or is Colonel House being groomed by someone for the Presidential race in 1920?

Some curiosity is being shown by newspaper editors and newspaper readers in this strained, illogical work. In the natural course of newspaper events no such space is ordinarily given to any such man. Indeed, hardly in history, and certainly not since the days of Samuel Johnson, has any private citizen fared so at the hands of an admiring scribe.

Colonel House is undoubtedly a useful citizen, and his friends describe him as an amiable and level-headed man. That he did not inspire the author's exaggerated statements as to his world-importance is declared to be a fact.

There are some queer expressions in these letters, as, for instance, the statement that some day we may be told how the Kaiser tearfully told his sister in Sweden years before the war that the war party had taken the control of Germany out of his hands.

Despite such expressions that would seem to indicate a desire that the Kaiser should be absolved from personal responsibilities for bringing on the war, it has been denied that these letters are to be regarded as anything more than a harmless piece of chauvinism. The author is said to be a diligent reporter on the Evening Post, who has known and extravagantly admired Colonel House for some years, and who seemingly has been indulged by the publishers in an ambition for fame and perhaps a place in the pages of "Who's Who."

It is said that the manuscript of these letters was submitted to Colonel House for verification of statements of fact. It is also said that Colonel House advised against the publication of the letters. Many of the Colonel's friends will regret that the author did not heed this advice. And all will want to

know if he is being skillfully used as the background of an effort to create maudlin sympathy for the Kaiser in order to save him eventually from the gallows as the world's greatest murderer. Has anybody ever suspected the Evening Post of any pro-German leanings in the past?

GIVE UP THE PUBLIC USE OF GERMAN.

ANSWERING an argument written to the Public Ledger of Philadelphia by E. Totzke in defense of the use of the German language in some churches of this country, S. Kriebel of Pennsburg, Pa., writes to the same paper, presenting a much stronger argument against the use of German. Mr. Totzke made the specious plea that to exclude German would be "unjust, unkind and fraught with great danger to our country," inquiring whether 80,000 young men of the Synod of Missouri in the United States service would fight with the same enthusiasm if their parents and friends could not have the Gospel preached to them in German. To this thin excuse for maintaining an old custom, which should and would have been outgrown long ago no doubt but for the work of Teuton propagandists, Mr. Kriebel replied most forcibly as follows:

I am also of German stock. My ancestors came to this country a good many years ago because of religious persecutions in Germany. I am sorry to state that there are still many of our older people who prefer to have the Gospel preached to them in the language of their fathers, but I have come to the conclusion that to continue the use of the German language in public is undesirable at this time. Because the German language has been used so extensively in the last few years in German newspapers and in the pulpits for German propaganda and because there has been so much disloyalty associated with the public use of the German language in newspapers, pulpits and schools, I regret to say the German language has fallen into great disrepute and is under serious suspicion, and rightly so. As loyal and patriotic American citizens of German ancestry it behooves us to leave no word unsaid or proper action undone to show our patriotism not only by word of mouth, but also by act and by deed. The older people who still prefer the German language in newspapers and pulpits ought to be perfectly willing to subordinate their preferences in this matter for patriotic reasons. In fact, it is no credit to those of us who have lived in this country for a considerable length of time and whose ancestors came from Germany to have clung so long and so tenaciously to the language of a foreign country and not to have adopted the public speech and language of our own country. The English language is the language of our country, and to continue to speak the German language in public and to use it in the newspapers and in the pulpit is a questionable proceeding and one of doubtful loyalty and patriotism.

We, as American citizens of German ancestry, cannot afford to be under suspicion at this time and cannot afford to encourage or defend the language of our enemies, which has been so sadly degraded from its high position by disloyal, unpatriotic and, in many instances, treasonable uses on the part of pro-German propagandists. And I have no doubt that the 80,000 boys of the Missouri Synod would virtually unanimously approve of the exclusion of the German language from the churches of their section if they are loyal and patriotic soldiers, as I have no doubt they are. The very fact that the members of the Missouri Synod left Germany to enjoy freedom in this country ought to make them willing to adopt the language of their country, even at considerable personal sacrifice and inconvenience. Any other course is questionable at this time, so that the exclusion of the German language from the pulpits of this country would not only not be "unjust, unkind and fraught with great danger to our country," but, on the contrary, the further use of the German language in newspapers and pulpits must be regarded as "unjust, unkind and fraught with great danger to our country."

It is not now a question of the German language as such; it is a question of loyalty, a question of patriotism, a question of true Americanism; and, least of all, can our citizens of German antecedents and of German ancestry afford to be under suspicion at this time?

Mr. Kriebel gives sound reasons why the use of German publicly should cease in this country for the duration of the war. It has been employed for purposes of concealment and treason wherever it was supposed that none near could understand, and it is therefore justly under suspicion. To permit it to continue only offers a convenient medium for sedition to be spread and those who may be put to some inconvenience by discontinuing its use ought cheerfully, as Mr. Kriebel suggests, consent to abandon its use while we are at war.

PRO-GERMAN ACTIVITIES IN MANY WAYS EMBARRASSING COUNTRY'S WAR.

THESE are indications that the German propaganda works in many ways, sometimes little understood by our own country. The MANUFACTURERS RECORD has a letter from a business man in one of the lumber centers of the South in which he reports that there are a large number of alien enemies, or naturalized Germans, employed in responsible positions in Southern lumber mills. He mentions one mill which he says has a manager born in Germany, and whose mill foreman, yard foreman, head sawyer, tramway boss and office helper are all of direct German descent, and he asks if this is not a dangerous list to be in one mill engaged in cutting ship timber; and he says:

Is it any wonder out of 67,000 feet of hardwood lumber recently cut in this mill the inspector turned down all but 2400 feet because the machine had been set nearly six inches wrong?

This correspondent advises that a competent loyal engineer was recently discharged without any explanation, and that this mill shut down for a long time when it was full of Government orders. The discharged engineer has recently made a detailed report of some of the things which have been taking place in the mill, and to this he adds that there was recently a half-hearted investigation, but competent witnesses were not interviewed, or such of them as were interviewed were not closely questioned.

A few days after this letter was received we had a letter from a shipbuilding city of the South in which the following statement was made:

There are half a dozen shipbuilding concerns here, paying enormous wages to unskilled labor, and little or nothing doing. Two young men are interested in one of the plants whose parents, I am informed, cannot speak the English language.

And to this our correspondent adds:

There are two subjects ever uppermost in my mind—the shooting of spies and the drafting of everybody between the ages of 18 and 62.

These two letters have been referred to the proper authorities in Washington, and we trust that they will be thoroughly investigated, but they are typical of the statements which come to the MANUFACTURERS RECORD from other concerns and from other people who believe that pro-German activity is in evidence in many directions and causing delays and difficulties which are not generally understood. There is also here and there a feeling that these activities are not always investigated as thoroughly as the situation demands, and there is a rising sentiment of bitter hostility to the leniency with which German spies are treated.

It is time that this country stopped interning German spies, and, in place of interning them, interned them.

We are at war, and any evidence that the Germans may have of softness on our part is regarded by them as weakness and as an indication of the power of the pro-German propaganda in this country. We have no doubt that the Kaiser is still believing that pro-Germanism in America will yet be able to swing this country from relentless warfare into a peace propaganda to save Germany from destruction.

The time has come to intern German spies and intern for life every pro-German, and not merely condemn them to a few months or a year or two of comfortable living in a well-equipped and well-managed and easy living penitentiary. Those who are convicted of being spies should be shot without a moment's hesitation. Those who are convicted of pro-German activities of any kind should be sent to the penitentiary for hard work for life. No milder treatment will suppress the pro-German activity which is still being carried on so vigorously throughout this country.

Negotiations have been satisfactorily concluded by which Japanese Government and shipbuilders will turn over to the United States 66 vessels of 514,000 aggregate tonnage for use during the war. Deliveries begin at once, and will continue to June, 1919.

Hell Rebels Against the Intrusion of Kaiser Wilhelm as Satan's Superior

[May 7, 1918: On this the third anniversary of one of the greatest crimes in history, the sinking of the Lusitania and the murder of innocent women and children, we feel that we cannot better express our opinion on the subject than by republishing from our issue of June 21, 1917, the following article written by the editor of the Manufacturers Record shortly after the sinking of the Lusitania, but not published until 1917 because, when written, some of his friends thought it too strong a statement of the case, but today most of them think it is a rather mild presentation of the matter. Editor Manufacturers Record.]

[Reprinted from the Manufacturers Record June 21, 1917.]

Seated on his throne of flame, with the fumes of burning sulphur as incense, the Ruler of Hell surveyed the mighty throng of kindred spirits. They had been called in from their work throughout all the universe to report on all the evil that they had been able to accomplish or that in their devilish ingenuity they had been able to plan. From the myriads of peopled worlds, where Satan's minions had been striving to put into action all of the evil influences upon which, through the unnumbered centuries, they had fed their imagination, came the leaders of Satan's kingdom.

One by one they sought to win the favor of the Ruler of Hell by telling of diabolical deeds, each trying to surpass the other as they told of sins that had never before been heard of even in these infernal regions. As Satan listened to these chosen spirits, with all their hell-born devices to pull down virtue and uplift sin, there crossed his countenance the faint glimmer of a smile in a region where laughter is unknown—the Satanic smile of satisfaction of how well his messengers had learned their lessons and improved on his teachings.

Presently, however, there came one who, despite the effort to suppress him, demanded a full hearing.

"This region," said he, "has too long been ruled by incompetence and mediocrity.

"Through the ages we have been taught that Satan held his position and his power because in all the wide universe there had never been found a demon who could match him in villainy or who could, sometimes in the guise of a saint and sometimes in that of a fiend, work such indescribable horrors upon all of God's creatures.

"We have been told that no other demon in all the universe had the imagination to plan or the power to wreak upon the innocent such sorrow and suffering as Satan.

"We have been told that for devilish ingenuity in devising new sins and new ways of destroying virtue, in tearing down all that is good, and in spreading broadcast through unnumbered worlds unending sin and suffering, Satan had never been matched.

"But though this may all have been true in the past, it is no longer true. The right of rulership by reason of superiority in evil no longer belongs to him who has dominated us.

"I have come from earth, where for nearly three years it has been my mission to study the work of one who has devised more evils and more sin and more sorrow and suffering than any of us have ever before known in all our wide travels from world to world.

"I have found one who outclasses Satan.

"I have found one in comparison with whom as a deviser of evil and sin and the creator of sorrow Satan is but a cheap piker.

"I have brought with me the one who, by reason of his abilities to murder innocent women and children and to cause such outrages upon them that murder itself seems angelic by comparison, and with unmatched hypocrisy claims that he is a copartner with the Almighty in his devilish work, is justly entitled to rule this region.

"Since the beginning of time there has never before been one who gloried in such campaigns of murder and outraging of women and children as he has gloated over.

"Other men have committed these crimes, but in doing so they have shrunk back abashed before even the devils themselves.

"But I have found one who glories in these achievements.

"I have found one who has rejoiced in unspeakable outrages committed by his army upon innocent women; one who has covered the world with voiceless woe; one who has made rape an honor and murder a crown of glory.

"I have found one who has made the name of his peo-

ple, honored in the past, now a hissing and a by-word, hated by all the world; despised as have been no other people in all human history; one who turned his army and navy into cold-blooded murderers and ravishers of women and children, and made them glory in their deeds of evil.

"I have found one who, in times of peace, covered all the world with his spies; one who, under the guise of friendship, was for years preparing to stab to death everyone who stood between him and his lust of world power; one who has educated his once well-meaning people into active agents to commend his devilish work, even some men and women who professed to be followers of the Son of God.

"I have found one who bought the services of men and women in other lands, who sold themselves to try to betray civilization for even less than Judas demanded, and who, like Judas, claimed to be doing good when they knew the rottenness of their own hearts.

"Indeed, I have found one who has planted in every land the Judas fruit of treachery and deceit, even among those who professed to higher things, and who have made even Judas mourn that they outmatched him, since he betrayed his Lord only once, while the Kaiser and his crowd have unceasingly betrayed all humanity.

"I have found one who, by these pre-eminent abilities in outclassing Satan, has a right to assume rulership of Satan's kingdom."

The Satanic smile had faded from the face of the Evil One. At first bitter and relentless hatred possessed him as he listened to one who had dared to suggest a new ruler, and he sent forth his minions to fire with intenser heat the lower depths of the lower hells into which to drive this traitor; but just then the doors of Hell swung wide and Satan saw the spirit of Kaiser Wilhelm enter. Instantly he realized his rule was at an end. He saw that his vaunted superiority in sin and devilry was as nothing when matched against that of the Kaiser. As he slunk away he saw escorted to his seat of burning brimstone the one who on earth had outmatched him, and whom he felt was justly entitled to the rulership of his kingdom.

And then as the new ruler took his seat upon the throne of blazing brimstone there appeared in the flames that played around his head a picture of a great ship in whose side there was a gaping hole. Standing in the center of this there appeared Kaiser Wilhelm calling to his demons to bring to him the helpless babies and innocent women. With fiendish glee he caught them and gloatingly fed them to the ravenous sharks below. The onlookers shuddered at the sight, realizing that even Hell had sunk to hitherto unknown depths of depravity.

Suddenly, however, the fiends of the lower world, who for a moment had been dazed by the appearance of the new ruler upon the throne, aroused themselves to this degradation of Hell and determined to rid even that region of one who had so surpassed in devilry all that Hell had ever known. In mad rebellion they rose. With one great convulsion Hell vomited him forth, for even its inhabitants of murderers and thieves, the lewd, the lascivious and all the unrepentant throng could not sink to such depths as to permit him to remain.

New West Virginia Chemicals Plant.

An additional factory, to be located on the south side of Elk River, between this river and the Coal & Coke Railway, will be built near Sutton, W. Va., by the Sutton Chemical Co. This factory will furnish wood chemicals for the Government, and the company wires the MANUFACTURERS RECORD that it is being built under Government contract at an approximate cost of \$320,000. The daily capacity will be 80 cords of wood.

The Electrochemists of America Amazed at the Vast Resources of South for Electrochemical Industries.

HOW THE SOUTH WILL HELP WIN THE WAR THROUGH ATMOSPHERIC NITRATES AND OTHER PRODUCTS OF SOUTHERN FACTORIES.

By WILLIAM H. STONE.

"We have come; we have seen; we have been conquered."

Thus spoke Dr. Colin G. Fink, president American Electrochemical Society, in response to one of the welcoming addresses in the latter part of the trip of the society through the Appalachian South last week. It is doubtful if ever before such an influential party of representative chemists, engineers and experts have made a tour through the South with greater promise for the development of important dormant resources to follow than the tour undertaken by this society. It was said that when the trip South was first proposed there was some opposition among some of the members toward making the tour, because it was doubted that sufficient members would attend to make it a success. There were those, however, within the society that believe it would be a success, and when the tour was determined upon about 125 members made up the party. Whatever doubts they had were completely removed as a result of the visit. Not only were they amazed at the magnificent combination of resources and advantages for their industries which they found in the Appalachian South, but they were literally overwhelmed with the splendid hospitality extended to them by their Southern hosts.

It was very interesting to one who has traveled through and studied the resources of the Appalachian South to witness the growing amazement of the visitors as the tour progressed and they saw more and more of this section. It seemed as if each place but added to what had been gone before, and the result was that when the end of the visit came there was not a man in the entire party who had not become an enthusiast regarding the South and its possibilities for their industries, and it may be said that almost unanimously they agreed that the Appalachian South was bound to become one of the world's greatest centers in electrochemical and electrometallurgical undertakings.

Bearing out this statement are some of the comments made by representative men of the society covering this visit, which showed beyond question that these experts looked to the Appalachian South as a promising field for their future endeavors. What, perhaps, surprised them most was the almost complete array of the raw materials, cheap coal and extensive water-powers that were available in such close proximity, thus making it necessary to haul but very few materials in order to manufacture on a large scale. Then again, they were struck with the remarkable location of these advantages in the very heart of the country with splendid railroad facilities and waterways that would provide the best of transportation facilities to reach markets in every direction.

Naturally, in the course of the visit there were some points that stood out bolder than others in the way of actual accomplishment along electrochemical or associated lines, and which are direct evidences of the complete advantages of the South as a situs for these industries. Prominently among these may be mentioned the extensive and co-ordinated industrial development at Kingsport, Tenn., and the truly remarkable creation of this industrial center and a township of 10,000 people from a farm land seven years ago to a prosperous industrial center of today. Next in order was the plant of the American Zinc Lead & Smelting Co. at Mascot, Tenn., where was inspected the concentrating mill in which zinc-sulphide-bearing iron ore was crushed, sized and separated into zinc concentrate and iron ore by the

oil flotation process. A feature of this plant was that prior to the war they had but a small mining development, and the company largely relied upon raw materials drawn from other sources. Since the war, however, more complete and extensive investigations were made to ascertain the exact extent of their deposits, and after going much deeper in the ground they found an almost limitless supply of raw material, the result has been a considerable enlargement of their plant with plans for much greater expansion, and it was even said that these plans involved the establishment of smelters and the electrolytic process for securing zinc.

In the Knoxville district the visitors were carried to the great water-power developments which the Aluminum Company of America is making on the Little Tennessee River in Tennessee and North Carolina. They saw here a concrete dam half completed and 200 feet high. This dam is 40 feet higher than Niagara Falls. It will generate 90,000 horse-power. The complete plans of the Aluminum Company on this river and its tributaries provide for a total of seven dams, which will generate altogether 400,000 horse-power, and at one of these sites another 200-foot dam will be built. It may be possible that one of these dams will be even higher than 200 feet, because if it is found that the 200-foot dam is a thorough success the company has another site where it is said a dam could be built as high as 450 feet owing to the lay of the land, and that the company intends to carry the height of its dams as high as it possibly can in order to secure the fullest amount of power possible. These developments are being carried forward under separate subsidiary companies, the Knoxville Power Co. handling the work in Tennessee and the Tallassee Power Co. that in North Carolina.

What impressed the visitors most at this point was the ideal conditions surrounding the construction of these dams, and they were enthusiastic on expressing their opinion regarding this development. With the completion of all of these dams there is no doubt but that the Aluminum Company's plant at this point will be one of its largest undertakings in the country.

At Chattanooga the feature visit was to the plant of the Southern Ferro Alloys Co., where ferro-silicon is being made in electric furnaces. As one member stated, this is the first time that a plant of this kind has ever been thrown open for inspection, and the visitors were most expressive of their opinion of the broad-mindedness of the management. Paul J. Kruesi, who is at the head of this enterprise, came in for much congratulation upon his progressiveness in building such a splendid plant in the South, and showing thereby that the South was able to operate successfully the highest types of ferro-alloy industries.

Here, too, was also seen the interesting by-product coke-oven plant and the manufacture of chemicals from the resulting by-products by the Chattanooga Chemical Co. This plant has the most modern equipment for its work, and not only what it is doing, but its laboratories and experimental rooms for further developments created great interest on the part of the visiting chemists.

The visitors were also taken on a boat trip to the big Anthony N. Brady hydro-electric development at Hales Bar. This was of special interest not only because the development here creates a large amount of the water-power, but because at the same time it has

materially improved navigation on the river for a good distance.

This development, as well as that at Muscle Shoals, is illustrative of how hydro-electric undertakings on Southern streams in many cases are largely tied up with river navigation, and while it is not generally conceded to be an economic proposition to construct low-head hydro-electric developments, yet when such developments are taken in conjunction with permanent improvement of navigation on the rivers they then become matters of important economic enterprise, and, of course, the charges should be proportioned between the improvements for navigation and the power created for hydro-electric purposes.

The development at Muscle Shoals is along this line, and it must be conceded that a wonderful accomplishment has been obtained when the three dams will have been completed, providing for 600,000 horse-power of hydro-electric energy, and at the same time removing forever the great obstacle in making the Tennessee River navigable from Knoxville to Paducah, Ky. This certainly seems to justify the great cost entailed in carrying forth these improvements.

At Muscle Shoals, the next point visited, was found, perhaps, one of the greatest features of the visit, this being the big nitrate plants which the Government is building for the fixation of atmospheric nitrogen by two processes—the Haber process, controlled by the General Chemical Co., and the cyanamid process, by the American Cyanamid Co.

Immense Plants for Atmospheric Nitrates.

In describing the features of nitrate plant No. 2, which will use the cyanamid process, one of the officials stated that 1,000,000 tons of raw materials would enter the plant annually.

A lime plant is being constructed that will burn 350,000 tons per year and will be the largest lime-burning plant in the country.

The coke-drying plant will handle 100,000 tons of coke per year.

The liquid-air plant will have a greater capacity than all other plants of this kind, both in the United States and Canada combined.

The power-house under construction at the plant will produce 45,000 kilowatts, while 13,000 kilowatts will be obtained from hydro-electric plants in the vicinity.

Housing structures have been erected to take care of 12,000 men, and the two plants now have on their payroll about 13,000 employees. When completed the number of permanent employees will be between 3500 and 4000.

Every facility has been provided at these camps and villages for the health, welfare and recreation of the employees, there being recreation buildings, moving-picture shows and Y. M. C. A. structures, also large mess halls that feed 5000 men every thirty minutes.

Briefly stated, the plan of operation in plant No. 2, which will be operated on the cyanamid process, will be as follows: The lime and coke will be fused in carbide furnaces; the product will then be cooled, ground and placed in ovens of one ton capacity each. The powdered nitrogen will be piped to the lime-nitrogen rooms and there combined with powdered carbide. The product will contain 25 per cent. ammonia, or 20 to 21 per cent. nitrogen. It will be cooled, ground and

heated in autoclaves. The ammonia is driven off there, and it goes to catalyzing-rooms, where it is mixed with air and passed through platinum screens at red heat and oxidized to nitric oxide, which is cooled and absorbed, forming nitric acid. It is proposed to make the nitric acid from one-half of the ammonia coming from the autoclaves, and that nitric acid is then combined with the other half of the ammonia to form ammonium nitrate.

It was stated that there is no reason why plant operation should not move easily, because the only difference between this big plant and the existing one is that the Muscle Shoals plant has more units.

Remarkable progress has been made in construction work. The first carload of material was delivered here December 20, and construction has proceeded continuously since that time; and when one looks at the tremendous buildings far advanced in construction, the extensive housing plans being worked out, and other details showing tremendous progress within practically four months, it is almost astounding to believe that such an immense amount of work could have been done in such a short period.

Equally fine progress has been made in the construction of nitrate plant No. 1, which will use the General Chemical Co.'s process. On October 1 last orders were issued for the construction staff to go to Sheffield to begin work. On October 2 a contract was signed with J. G. White & Co. to construct the buildings. On October 23 the first carload of material arrived, and following this the construction has gone ahead without any delay in any direction. There have been no strikes or hold-ups, no suspension of operation and no frictions of any kind in this plant. The process building will be 240 ft. x 225 ft. The power-house will have 5000 boiler horse-power capacity, with two stacks, each 200 feet high.

The concentration and oxidation buildings are under contract with the Chemical Construction Co. of Charlotte, N. C., which company also has the contract for similar buildings at plant No. 2.

One-half of plant No. 1 is expected to be finished by June 15. One-half of the ammonium nitrate made at this plant will go direct to explosive plants, where it will be mixed with trinitrotoluol and loaded direct into shells. The other half, in the form of concentrated nitric acid, will be sent to Hadley's Bend plant for the manufacture of smokeless powder.

It is said that as soon as plant No. 1 has been completed construction will be immediately started to duplicate the plant.

It has been especially pointed out that no experimental methods of operation will be installed at these plants. Only those processes will be used which by actual operation on a commercial basis have been proven successful. Experimental laboratories, however, will be established at both plants, where new ideas will be developed, and when they have proven themselves superior or more adaptable than the processes installed they will then be used, but not before. The officials in charge there stated that under no circumstances will any equipment or process be used in an experimental way, as they cannot afford to use experimental processes in such critical times.

One of the officials in charge of these plants commented with unusual fervor on the spirit of co-operation by the leading chemical plants throughout the country, and he stated in no case had any chemical plant or laboratory been unwilling to throw open their entire plant or books in order that they might secure the benefit of the most approved ideas for the operation of plants of this kind. In many cases this involved the opening up of trade secrets that heretofore have been considered sacred, and this official stated that no better evidence could be given of the desire of the chem-

ical industries to do everything in their power to help the country win the war.

In several cases it was also said where companies had spent hundreds of thousands of dollars in working on new processes, they had not hesitated to advise the Government that such processes had not been perfected and it would be wiser for them to use some other method.

The officials also commented upon the splendid co-operation they have received from the officials and business men of the towns of Florence, Sheffield and Tuscumbia. Not only has every effort been made to help them in their work, but they have also endeavored to protect them from annoyances by undesirable characters, and in several instances when names of professional agitators had been given to the city officials they have notified such agitators to leave the town immediately.

An outstanding feature of the work at these plants has been the splendid esprit-de-corps that has been created through intelligent management on the part of the officials. The men have been instilled with a desire to do their utmost to complete these plants at the earliest possible moment, and they have been made to thoroughly realize how dependent the nation and our soldiers are upon their efforts. At a number of points throughout the plant signs have been placed carrying the following striking statement: "If you want to beat the Kaiser, work; don't loaf."

Another illustration of the loyalty and morale of the workmen is the fact that \$400,000 in Liberty Bonds was raised by the men employed on the construction of these two plants.

Anniston Said to Lead World in Perfection of Its Ferro-Alloy Plant.

At Anniston, Ala., the plants of the Southern Manganese Corporation attracted especial attention and comment on the part of the electrochemists, and their enthusiasm over the accomplishments at this plant, under the direction of Theodore Swann, the president, was voiced in the words of Dr. Joseph W. Richards, professor of metallurgy, Lehigh University, and secretary of the society, who said that he had visited many ferro-alloy plants in this country and in Europe, but nowhere had he found a plant as fine and as modern in its design and operation as the plants at Anniston. A remarkable work has been accomplished by Mr. Swann in establishing this industry. At first he operated under Brazilian manganese ores, which, of course, required ships to bring the material here. He then operated under Western ores, which required cars over a long haul. Knowing the need of ships and cars for war purposes, he started to investigate the manganese ore possibilities in the South. He has had six field parties thoroughly prospecting the South for these ores, and has located deposits that have caused him to become enthusiastic for the operation of his plant under Southern manganese ores, and he has expressed himself as believing that with proper co-operation on the part of the Government the Southern manganese ore deposits will be such that these can be operated to meet every need of this country for ferro-manganese requirements.

In addition to these various plants referred to as reflective of the South's progress along electrochemical lines, many other diversified plants were inspected that had some relation, directly or indirectly, to chemical or electrochemical industries, and incidentally the attention of the visitors was called to the very extensive resources of mine and forest that held out promise for the establishment of a wonderfully diversified industrial center in the Appalachian South.

Amazed at Birmingham.

One of the visits that particularly impressed the electrochemists was their tour of the Birmingham district. They were amazed at the wonderful development found there, and when they were told that the coal, the iron ore and the limestone for the operation of the extensive iron and steel plants throughout this district were found right in the district itself they were literally overwhelmed with admiration for such a splendid situation. The visit to Birmingham was handled by the Alabama Technical Association, whose membership represents six of the leading technical societies, so that the committee from this association was able to give the visitors information of every kind regarding developments in the Birmingham section.

Strong Tribute to Work of Railroads in Bringing About Utilization of Southern Resources.

At each of the points visited an opportunity was arranged for a meeting at which addresses were made by members of the society and representatives of each district. In this way each section was able to learn something of what electrochemical industries mean to the South and what the visiting scientists thought of the resources and advantages of the Appalachian South, while the Southern men were able to point out the resources and advantages which they had as of direct interest for the establishment of electrochemical and associated industries. Special pamphlets were also distributed at each point, so the visitors could carry away with them some permanent reference regarding each section.

At Kingsport President J. Fred Johnson of the Kingsport Improvement Corporation; V. V. Kelsey, chemist and industrial agent of the Carolina, Clinchfield & Ohio Railway, and ex-Governor John I. Cox of Tennessee pointed out the advantages of the Kingsport district, and there were also on display here many samples of raw materials that exist along the Clinchfield for establishment of industries of this character.

At Knoxville Prof. John A. Switzer of the University of Tennessee gave an elaborate illustrated talk on the water-power facilities in the Knoxville district. This discussion was based upon a survey of six weeks of the water-power possibilities of this section, and diagrams were thrown on the screen to show various water-power projects that could be undertaken. Illustrations were also given of established water-power plants, and it was stated by Professor Switzer that within the Knoxville district proper at least 750,000 horse-power could be generated from undeveloped water-powers on the streams in that section.

At Chattanooga E. M. Jones, mining engineer, discussed the extensive coal deposits available around Chattanooga and other raw materials in that district, and Dr. T. Poole Maynard, consulting geologist of the Central of Georgia Railroad, outlined briefly the geological history of the Chattanooga district, and pointed out the range of raw materials available for chemical and related industries.

At Muscle Shoals, in addition to talks made by officials in charge of the construction of the two governmental nitrate plants, Col. J. W. Worthington and C. W. Ashcraft discussed broadly the Muscle Shoals district as a center of wide possibilities for electrochemical enterprises, and showed that with the enormous power to be developed at this point, in conjunction with raw materials available on every hand, Muscle Shoals offered every advantage for electrochemical development.

In Birmingham Dr. Eugene A. Smith, State Geologist of Alabama, told of the resources of that State that would be of special interest to chemical and electrochemical industries, while in Florence Theodore Swann, president of the Southern Manganese Corporation, not only told of the reasons why his plant was

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located at Anniston, but also pointed out some of the important raw materials and industrial advantages that had brought so many diversified plants to that city.

Altogether, these discussions by men giving actual facts dealing with the situation in the Appalachian South made a great impression upon the visitors, and as they were able to see many of the things that were discussed, this impression was all the more indelibly fixed upon their minds and caused them to look forward with the greatest enthusiasm on the Appalachian South as a future situs for their industries.

At each of these meetings President Fink called upon various members of the society to give brief talks, and in introducing them he pointed out the great work that had been accomplished by these men in making possible America's supremacy in electrochemical industries.

Every one of these visitors in their talks commented upon the ideal situation as it existed in the South for electrochemical manufacture, and they caused great enthusiasm at every point by the positive way in which they predicted the future developments along electrochemical lines in the Appalachian South.

The visitors were much impressed with the splendid work which the railroads of the South have accomplished through the employment of chemists and geologists to prospect the raw materials in their respective territories, and so analyze and classify them that they can be made of the greatest advantage to those seeking knowledge of the opportunities they present for commercial development.

Electrochemistry and National Economy*

By DR. COLIN G. FINK, President American Electrochemical Society.

The American Electrochemical Society considers itself very fortunate indeed to have been afforded the opportunity of undertaking this most interesting and highly instructive trip through the Appalachian South. What we have already seen more than convinces us that the Appalachian South is rapidly developing into one of the leading industrial centers of the world. We electrochemical engineers look upon Muscle Shoals as the new Niagara—the Niagara of the South!

What constitutes an electrochemical industrial center? What are the essential requisites? What are the raw materials necessary for the production of that long list of metals, alloys, carbides, fertilizers, explosives, abrasives, lubricants, solvents, refractories, disinfectants, electrodes and gases for cutting and welding? The first essential is an abundant supply of cheap power—power to be had in large blocks for 24 hours a day and 365 days a year! Cheap power is almost always synonymous with water-power—and of this the Appalachian South has been supplied by nature in gracious abundance. In the State of Tennessee alone, according to the estimates of Professor J. A. Switzer of the University of Tennessee, there are available almost 1,000,000 horse-power. In other words, Tennessee alone has enough power available to foster an electrochemical industry twice the size of that existing at Niagara Falls today! When our Government decided to establish the nitrogen fixation industry in this country and considered the various localities suitable for the electrochemical production of those most vital compounds, ammonia and nitrates—without which we could neither feed our populace nor defend our border,—our Government, after due deliberation, most wisely decided to erect the "air salt-peter" factories at Muscle Shoals, Alabama. Therefore, then, as regards the supply of cheap water-power in the Appalachian South there is no doubt. Careful surveys have reported a vast abundance. In this connection it is gratifying indeed to note that the United States Chamber of Commerce, comprised of 500,000 business executives from every State and Territory in the country, unanimously adopted resolutions calling on Congress to make provision for harnessing the millions in water horse-power that are now going to waste.

The development of our water power resources is of

In one of his addresses Dr. Colin G. Fink commented particularly upon the wisdom of the railroads in carrying on broad work of this kind, and stated that too much credit could not be given railroads for undertaking work along these effective lines.

Briefly summing up the possibilities to follow this journey through the South by the American Electrochemical Society, there is no question but that those making the trip were thoroughly convinced of the complete advantages offered in this territory as a future situs for electrochemical and electrometallurgical industries. And it was stated that already a number of influential firms have been quietly investigating possible sites in the South, and that others have expressed themselves as having determined to look into the situation very closely in the near future.

For nearly 15 years the writer has been covering meetings of a widely varied character in all parts of the South, but, as stated recently by the MANUFACTURERS RECORD, this Southern tour of the American Electrochemical Society is considered as perhaps of greater importance than any other it has helped bring to the South, because the members of this society are engaged in industries for which the Appalachian South offers limitless possibilities, and out of this visit it is believed will come the development of dormant resources that will not only bring about the establishment of many important industries, but will also create new wealth for the benefit of the nation.

prime national economic value. It means the saving of coal and oil, which though most abundant here in the South are nevertheless exhaustible, and once used can never be replaced; it means the saving of railroad equipment now used for the transportation of coal and oil; it means the saving of a long list of valuable chemical products now burned and wasted under thousands of boilers; and it means the saving of millions of dollars in labor. The water-power generated in the Province of Ontario, Canada, has reduced coal consumption between 5,000,000 and 6,000,000 tons per annum. Under fairly efficient working conditions it requires from two to six pounds of coal to generate power equivalent to one horse-power hour. Think of the tons and tons of coal represented by the available horse water-power of this country which is estimated by the Geological Survey at 32,000,000 minimum potential.

The electrochemist looks upon the vast coal resources of the Appalachian South as intended for purposes of greater economic value. The coal reserves of a single State, West Virginia, have been calculated at 150,000,000,000 tons. The Southern coal makes the best coke, and very valuable by-products are thereby conserved. Alabama is second largest coke-producing State in the country. Tons of coke are shipped from the South to Niagara Falls, and there heated in contact with sand in large electric furnaces that produce temperatures that are higher than can be attained in any other way. A beautiful crystalline product is obtained, carborundum, a silicon carbide, an abrasive which has found world-wide application. Another important electrochemical product largely dependent upon Appalachian coke is calcium carbide. This was first made by Willson at Spray, N. C., by mixing ordinary limestone and coke and heating to very high temperatures in the electric furnace. Calcium carbide is the source of acetylene which is used in conjunction with electrolytically produced oxygen in the oxy-acetylene torch for steel welding and steel cutting. You are all familiar with this time and labor-saving device. Calcium carbide furthermore serves as the "raw material" in the electrochemical manufacture of cyanamide, which the Government will soon be turning out by the ton at Muscle Shoals. It is a very efficient fertilizer. Another and very recent by-product of calcium carbide is

acetone, consumed in large quantities in the manufacture of explosives. There seems to be no end to the list of compounds and products of inestimable worth that are all primarily derived from Appalachian coke.

The South has been most strikingly favored by nature in the line of raw materials for electrochemical products. Next in importance to her coke resources are her extensive deposits of bauxite, the basic mineral from which that metal "of many uses," aluminum, is derived. The aluminum industry of this country ranks among the very first and consumes almost as much in kilowatts as all the other electrochemical industries put together. There are but four States in the whole country that have been mining bauxite in commercial quantities—Arkansas, Georgia, Alabama and Tennessee. In 1917 these States turned out 400,000 metric tons of bauxite, which is 12 per cent. more than the world's bauxite output of the year 1910. The Aluminum Company of America has a large metal-producing plant at Maryville, Tenn. This appears to us as a very wise move. Why ship bauxite by freight hundreds of miles away? Why not make the metal near the source of the raw material? It requires two tons of bauxite for one ton of aluminum metal.

Bauxite is also used for the manufacture of aloxite and alundum, artificial emeries of great hardness and uniformity which are made in electric furnaces at Niagara Falls. The artificial abrasives, alundum, aloxite and carborundum, have practically replaced imported emery and corundum. These electric furnace abrasives have virtually revolutionized the machine shops, doubling and trebling their output.

Ferro silicon and other ferro alloys are electrically made by the Southern Ferro Alloys Co. at Chattanooga, Tenn. Electric ferro manganese is made by the Southern Manganese Corporation, Anniston. Large electric steel furnaces are in operation at Anniston, Ala., which we will see Saturday.

An electrochemical industry which is most typically American is the electrolytic copper refining industry. Over 75 per cent. of the copper consumed today is purified and refined by electrochemical methods; it is of the highest attainable quality, exceeding in purity "sterling" silver. The largest electrolytic copper plant in the world is located at Canton, Md., with an annual production of 720,000,000 pounds. The modern electrical industry with its dynamos and motors, its telephone, telegraph and wireless and its countless electromagnetic devices would be hopelessly crippled if we were to deprive it of electrolytic copper.

In the electric steel industry the United States, likewise, leads the world. The quality of electric steel surpasses that of the best crucible steel. Next to Minnesota and Michigan, Alabama is the largest iron-producing State in the Union. Over 50 per cent. of the iron-ore reserves of the United States are electric—located here in the South. Closely linked with the electric steel industry is the ferro-alloy industry. Ferro-manganese, ferro silicon, ferro chromium, ferro titanium and others. Deposits of manganese occur in many parts of the United States, but are most abundant in the Appalachian and Piedmont regions, Virginia and Georgia being the largest producers. Silicon is derived from quartz rock or sand. Titanium is derived from the mineral "rutile." For many years the sole producer of rutile in this country has been the American Rutile Co., whose plant is at Roseland, Va. Rails made of steel to which ferro titanium was added during the process of manufacture, are less liable to breakage and are 40 per cent. more durable than are ordinary open hearth rails. Another electric titanium alloy is cupro titanium, containing 10 per cent. titanium and 90 per cent. copper. This is extensively used in making sound castings of copper and bronze.

Carbon bisulphide is a solvent upon which the rubber industry is very much dependent. Formerly it was made by long tedious and expensive processes. Today all carbon bisulphide is made electrochemically. The raw materials are charcoal and sulphur. The great sulphur States of the world are Louisiana and Texas. The combined output of these two States exceeds not only that of all other States put together, but that of all the rest of the world. One of the many wells of the Union Sulphur Co. discharges 500 tons of sulphur per day.

If we arrange the electrochemical industries according to the number of factories and the total power consumed, both in this country and abroad, we find that the electrolytic alkali and chlorine industry rank fourth in the list. What a long army of interesting

*Annual address read at Knoxville, Tenn., April 30, 1918.

and important products have been developed and turned out by the ton by this industry: Caustic soda and bleach, chlorine gas, sodium metal, disinfectants and peroxides and a series of valuable organic compounds. The basic raw material is common salt, NaCl, and it is interesting to note that Virginia is sixth largest salt-producing State in the country. The electrochemist takes this salt, dissolves it in water and passes a current of electricity through the solution. How simple is this electrolytic method compared to the old-fashioned process of producing alkali and chlorine, according to which you had to start out with pyrites or sulphur, oxidize this to sulfuric acid, add this acid to salt, thereby liberating hydrochloric acid; then taking this acid and treating it with manganese peroxide to "free" the chlorine gas; the sodium sulfate, obtained by adding the sulfuric acid to sodium chloride, was dried, mixed with coke and limestone and transformed by heat into calcium sulphide and sodium carbonate, finally the sodium carbonate was dissolved in water and boiled with lime-producing sodium hydrate or alkali. We certainly need not emphasize that electrolytic alkali

spells "economy." Think of all the labor and power that is conserved!

One of the most recent achievements of the electrochemist is the commercial production of electrolytic tin. Unfortunately, outside of Alaska, our country has no large tin deposits. The electrolytic tin refining plant at Perth Amboy derives practically all of its ore from Bolivia. However, during recent years our Government has undertaken an earnest search for tin in this country, and it is gratifying to read the recent report of the United States Geological Survey on promising deposits developed in the Kings Mountain and Lincolnton districts, N. C., and in Rockbridge county, Va. So that it seems if we are to have any tin industry at all, it will be here in the South.

Truly, nature has been most lavish with her treasures here in the South, and the electrochemical engineer finds in this region, rich in natural resources, in water power, iron, coal, phosphates, manganese, aluminum, titanium, quartz, salt, copper, pyrites and limestone, the most ideal localities for the founding and fostering of important electrochemical centres.

Electrochemists Express Great Enthusiasm Over Prospects for Their Industries in the Appalachian South

[In order that the people of the South might know how the members of the American Electrochemical Society were impressed with the advantages and resources of the Appalachian South during their recent visit, a number of interviews were secured by the Manufacturers Record from representative men of the party. These interviews all reach the same conclusion—that the Appalachian South with its complete resources of water-powers, coal and minerals; its salubrious climate and splendid transportation facilities—all combine to make this a section that is bound to become one of the world's greatest electrochemical centers.—Editor Manufacturers Record.]

South Offers Opportunities for One of the World's Greatest Electrochemical Centers.

DR. COLIN G. FINK, President American Electrochemical Society, Director of Research, Chile Exploration Co.

Let us compare the opportunities for the establishment of electrochemical industries in the Appalachian South with other parts of the world, or other parts of this country.

Take for example Norway. This country is favored by nature with a large number of water-falls, and water-power development in Norway has met with much success in comparison with water-power development in other parts of the world. Norway has iron; a little coal, but of the other minerals it has but few that are at present in commercial quantities.

Or again, take the water-power developments in the mountains of Italy. These have been used in the electrochemical industries which, however, have been confined to a limited number, principally carbide and cyanamid. Italy has no iron, and for years it has been getting all its iron by purchasing old ships and breaking them up. Italy has no coal.

Similarly in our own country there are water-power developments in the West and the North; but there is no water-power development to my knowledge where so many of the requisite raw materials are as readily accessible, and accessible in almost unlimited quantities, as in the Appalachian South.

As regards new electrochemical industries, such as have not been worked out on a large scale in any other part of our country, the Appalachian South seems to offer desired advantages. A striking example is the production of ferro-manganese from native manganese ore. If this industry becomes well established in the South, and if we continue to uncover new and extensive deposits of manganese ore in this region, there is no doubt that we shall become independent of the imported minerals from Brazil.

There is another advantage that has not been sufficiently emphasized during our trip, and that is the Appalachian South is right near the center of the principal markets. The railroad facilities are very good, and there is no reason why the river shipping facilities cannot be improved upon, so as to take care of a large percentage of the output of electrochemical industries.

As regards electrochemical developments already

underway, the Government's plants for the fixation of atmospheric nitrogen now building at Muscle Shoals, and the 200-foot dam at Cheoah on the Little Tennessee River and six other dams to complete this development, bringing the total available power to 400,000 horsepower, little doubt remains in our mind that the future prospects of establishing a number of diversified electrochemical industries are of the very best.

Most of the members participating in the trip have been thoroughly convinced of these facts. The trip through the Appalachian South has been a great inspiration to all of us, and we little dreamed of the great opportunities that are offered by the States of the South for fostering one of the greatest electrochemical centers of the world.

I think that too much emphasis has been laid on the argument that water-power installation should be a paying institution from the very start, that power should be sold at such a price as to net a fair return upon the capital invested. It seems to me as far as national economy goes, and as far as the development of national industry is concerned, that it might be feasible to furnish power to industries at cost, or even below cost, in order to encourage the establishing of these industries. The increase in national wealth, due to the products of these industries, will more than offset any loss that might be entailed by furnishing power at low cost.

This argument naturally leads up to a second argument, and that is that the development of water-power in this country ought to be undertaken by the Federal Government.

In many cases the building of dams for water-power is so closely interrelated to the building of dams for the improvement of waterways that it seems a natural step for the Government to undertake the development. Government control of railroads along waterways is likewise essential. If the railway had not relinquished voluntarily its right-of-way rights along the river frontage, the plan of the Aluminum Co. of America for the construction of high dams on the Little Tennessee River would have been impossible.

Professor John A. Switzer of the University of Tennessee in his careful survey of the water-powers of the State of Tennessee has pointed out repeatedly that owing to the rights of way of this or that railroad, the full potential power of rivers cannot be utilized.

In Switzerland, where the government controls railroads, difficulties such as we are here confronted with are unknown.

South Bound to Become Great Electrochemical Center.

E. G. RIPPEL, Sales Manager, Buffalo Foundry & Machine Co., Buffalo, N. Y.

I believe that the South is bound to become one of the great chemical and electrochemical industrial centers in the country. With extensive water-powers available for development, and a wide range of raw materials suited for these industries, there is every reason to look for a great expansion in these lines. What is needed, however, is capital and men having the required experience in these industries to undertake this development.

Predicts Big Electrochemical Development in Appalachian South.

F. J. TONE, President-elect American Electrochemical Society, Works Manager, Carborundum Co.

This investigation which the Electrochemical Society has made of the resources of the Appalachian South will, I believe, bring most important results.

The great work before the society at the present time is to see that the entire electrochemical energies of the country are devoted to winning the war, and that full preparation is made for the commercial contest which will follow. We have now learned something of what the resources of the South really are.

The two most impressive things we saw were the large water-power developments, the one of the Aluminum Co., on the Little Tennessee, above Knoxville, and the other at Muscle Shoals. No one could see these and the many other developments of which they are typical and not realize that some time in the very near future a big electrochemical center will come into being in this region, stretching from Kingsport to Birmingham.

The Government nitrate plant at Sheffield illustrates how electrochemistry comes to the rescue when old sources of essential products fail.

At Anniston the Southern Manganese Corporation is certainly showing us how to solve the ferro-manganese problem. Due to the scarcity of ships to bring in foreign ores, the steel industry has been seriously threatened; but again electrochemistry steps into the breach. Native manganese ores are being discovered in increasing quantities, and the technical difficulties have been largely solved. The work of this company is a fine record of accomplishment.

Cheap Steam Power Makes It Unnecessary for South to Wait on Water-Power Development.

DR. JOS. W. RICHARDS, Professor of Metallurgy, Lehigh University; Secretary, American Electrochemical Society, and Member of U. S. Naval Consulting Board.

I have been very much struck with the abundant mineral resources, the railroad facilities and the progressive spirit found in the South.

I am particularly impressed by the very cheap coal to be found in certain sections. The water-power facilities are not particularly impressive, except where found in the hilly districts where moderately cheap development of moderate-sized units are possible.

The idea that the South needs the development of very large water-powers in order to lay the foundation for electrochemical processes and industries is a mistake, particularly in connection with the development of huge water-power projects utilizing a small head and producing only a moderate amount of power at a relatively high cost of development.

My observation is that the South in general, insofar as I have seen it on this trip, misunderstands the relative advantages and disadvantages of steam-power and water-power.

Huge water-power developments, such as at Muscle Shoals, require immense capitalization, a long time to develop, and are not ready for utilization until the last foot of the dam has been completed, and the full water-power ready for utilization.

On the other hand, steam-power plants can be built in units of any desired size, each unit being ready for work as soon as completed, and each one built for the purpose of satisfying a definite need for power.

At the present time the cheap coal of the South is

capable of furnishing power in any units desired at figures closely approximating the cost of water-power where developed with expensive dams and a low head of water.

I found electric current used in large quantities in the Birmingham and Anniston districts, and paid for at a cost superior to that of steam-power generated in large units with all modern improvements. Such districts as those mentioned are foolish in waiting for large water-power developments in order to install large electrochemical industries.

The cost of steam power from coal has been halved in the last ten years, and there is every prospect that it will be considerably improved by technical advances in the next ten years. It is my opinion that within five or ten years only the most favorably located water-power, and those of low cost of development, will be able to compete with large steam-power plants.

The steam-power plant at Muscle Shoals will, in my opinion, produce power cheaper than water-power can be developed there as a business proposition.

All of this is not said with any intention of dampening the enthusiasm of those who wish to expand the industries of the South, but to inform them that there is no need to wait for this expansion upon the prospective or problematical development of their large water-powers. Cheap power is already available, as cheap as and possibly cheaper than the looked-for water-power. Therefore, developments can begin at once, since all the other items of this industrial expansion are already on the ground and available.

I would warn against the possible economic mistake of developing extensive and relative expensive water-powers in localities where coal is cheap and where a careful and expert study of the relative cost of the water-power and steam-power may show the steam-power to be already as cheap as water-power.

I am an optimist concerning the South. Its industrial development will be wonderful, but it need not sit around and wait for the development of great water-powers. In fact, I think it should not. The opportunities for immediate expansion, the basis for which is the very cheap power which it is possible to obtain in large units from the best modern steam-power plants, is already available, and everything else that is necessary is at hand. Let Southern and Northern industrialists and capitalists realize that the opportunity is before them now, and not in the dim future, for the development of important prospects.

South on a Solid Foundation and Going Strong

By CARL G. SCHLUEDERBERG, Westinghouse Electric & Manufacturing Co., Chairman Membership Committee, American Electrochemical Society.

The trip of the American Electrochemical Society through the Appalachian South during the past week has been noteworthy in many respects; first, for the amount of ground covered, plants visited and information acquired; second, for the enthusiasm displayed on all sides, and third, for the general good which has been accomplished both to the members of the organization and through them to the country at large.

It had been generally understood among members of the society that the South was on the upcurve of prosperity, and that with the high prices prevailing for staple commodities, such as cotton and tobacco, considerable prosperity was being enjoyed; but it can be emphatically said that none of the members, including even those who had spent some time in the South, had any conception of the tremendous prosperity evident on all sides and the exceedingly solid foundation on which this prosperity is being built.

Recording the definite impressions carried away from this trip, we may enumerate the following:

1. A better and enlarged understanding of the immense mineral resources of the South, which have, as it were, merely begun to be opened up. Even at this date no one has any clear conception of the vast extent of these resources. It is generally recognized that they are great, but we all feel that they are much larger than anyone imagines at this time.

2. A first-hand knowledge of the power possibilities, which are so essential in industrial developments, and especially now when all our transportation facilities are taxed to the utmost and when fuel is so hard to obtain.

3. That it is being popularly recognized that these

industrial and power developments are essential to winning the war.

4. A distinct feeling of satisfaction from the strengthening of that portion of our country, which has for so long a time deserved financial aid to develop its resources and bring it into its own. This decentralization of our manufacturing facilities makes the country stronger and more impregnable from every standpoint.

5. A spirit of optimism over the outcome of the war on account of the inexhaustible mineral and power resources of the South, and particularly on account of the splendid spirit of Americanism and patriotism found on every hand. This one point alone carried every member of the Society off his feet.

It was generally known that the South was renowned for hospitality, but no one in his fondest dreams conceived of such a reception as was accorded the American Electrochemical Society 18 hours out of every 24 during its entire week through the Appalachian South.

So much for a first-hand, brief review of one's immediate impressions. Sober reflection and consideration will bring out many more points, and it can be said, with no fear of contradiction, that this trip has created a standard which future meetings of the Society will do well to even approach.

The Practical South Busy Utilizing Its Resources.

DR. CARL HERING, Past President American Electrochemical Society, Past President American Institute of Electrical Engineers.

As one of the few members who has attended almost all of the thirty-three semi-annual meetings of this society, I can say with some authority that this one has been the best and most successful of them all, besides being unique in that we lived in a hotel on wheels.

The wonderful resources of the Appalachian South, combining as they do the raw materials with the very necessary cheap coal and water-power, were a revelation to most of us. The progressive spirit, which was continually in evidence, when combined with these rich resources, gives assurance of rapid developments.

In the North we utilize 10 per cent. of the great power of Niagara Falls for the benefit of the industries and reserve 90 per cent. of it for the benefit of the honeymooners; while in the more progressive South such gifts of nature are utilized for the industries and beautiful lakes are created as a by-product for the honeymooners.

We from the North, who have heard so much about Southern hospitality, now know what it is, and that it is genuine and sincere; it makes us feel that we have made many good friends.

A Practical Outcome of the Trip.

CHAS. F. ROTH, Chairman Arrangements Committee, American Electrochemical Society; Manager National Exposition of Chemical Industries.

Not only has this trip been a revelation to the mem-

bers of this society in acquainting them with the resources, both mineral and water-power, that exist in that part of the Appalachian South covered by the tour, but it has given an inspiration to men who have brought about those developments at present completed or under construction. Many of the members realize the splendid opportunities and the possibilities which the resources of this section offer, and full credit is given the dozen or more pioneers who have seen and brought about the important developments now existing in the South.

Not only have the members received much from their tour, but the local people have gained from the visiting chemists, electrical engineers and others much helpful information which applied to their operations will increase production and bring about considerable saving, either in money, materials or labor.

An encouraging feature of the tour is that at the final stop a few members left the party to return to some of the towns visited in order to more carefully investigate the things they had seen or render assistance in industrial operations.

The members of the society were profuse in their appreciation of the splendid work of the committee in the several towns visited, and for the generosity of the manufacturing companies in opening the doors of their plants so the visitors could investigate their operations.

\$40,000,000 Earned Through Improved Chemical Work Shows Possibilities of Chemistry.

DR. ROBERT P. CALVERT of E. I. du Pont de Nemours & Co.

From my visit to Tennessee and Alabama I have learned two lessons: First, the United States have discovered their chemists; and second, the chemists are now discovering the United States.

Only three years ago the burden of the talk at the meetings and in the journals of the scientific societies had to do with the lack of appreciation of the technical man. Some rather large industries were content with one or two near chemists, often the product of a couple of night courses in chemistry. Now, these same industries are employing each dozens of men of thorough training, both theoretical and practical, and one concern states that its net earnings of \$40,000,000 in 1917 is almost exactly equal to the savings during the year, due to improved processes of manufacture.

The many courtesies extended to the American Electrochemical Society and the fact that such industrial leaders and busy men were willing to give an entire day to showing us their cities and factories—all these things indicate clearly an awakened appreciation of the chemist's part in the upbuilding of great industries.

The idea that America's technical men are not the equal of Germany's, happily, is now prevalent only in suburban chemical circles.

The potential resources of the South, the water-power possibilities, the fuel and ores, are very impressive. Not less interesting or important is the boosting spirit. Long may it live!

South Realizes Vast Significance of Southern Tour of Electrochemists

[That every section of the South visited by the American Electrochemical Society in its tour last week was keenly appreciative of the great value of having a chance to show these distinguished scientists and experts something of their resources is strikingly indicated in the comments received from chairmen of the committees at a number of the points visited.

Every section included in the tour seemed to realize that this visit was an opportunity that seldom comes, and not only did they so plan the itinerary in each place that everything of possible interest could be shown to the visitors, but they also entertained them in ways that will leave lasting impressions of good-feeling on the part of the electrochemists concerning their Southern tour.—Editor Manufacturers Record.]

Coming of Electrochemist Considered of Unparalleled Importance by Johnson City.

WM. G. MATHES, Secretary-Manager Chamber of Commerce, Johnson City, Tenn.

Johnson City appreciates to the fullest extent the opportunity and privilege extended to her Chamber of Commerce of entertaining as her guest for two hours on the morning of April 29 the American Electrochemical Society on its Southern tour. The many pleasing com-

ments and expressions of delight by various members of the visiting party amply repaid the committee in charge for all the pains they had taken for the entertainment of our distinguished guests.

This was such an opportunity as Johnson City never had before, in showing to this representative body of men what Johnson City really is today, her strategic location and her possibilities as a manufacturing center, to utilize the hydro-electric power which is sure to be developed on a large scale in the near future as

a result of the visit and investigation of these representatives of the American Electrochemical Society.

It is felt that when the American Electrochemical Society makes its report of this visit to the Appalachian South and that report goes out to each of its more than 1500 members, immediate results will follow and great numbers of water-powers undeveloped within a radius of 50 miles of Johnson City will be developed in rapid succession, with the result that Johnson City will be the natural home of numerous manufacturing plants using hydro-electric current for power and utilizing the inexhaustible quantities of raw material at our very door.

We feel that this newest and oldest section of our continent has only just now been rediscovered.

Knoxville Looks for Big Results to Follow Visit of Electrochemists.

DAN M. CHAMBLISS, President Board of Commerce, Knoxville, Tenn.

An event happened on Tuesday, April 30, 1918, that will be long remembered by Knoxville, Tenn., and vicinity. It was the visit of the American Electrochemical Society, which had been looked forward to for months.

By reason of that visit it may be said that supply and demand were introduced to the other and became acquainted. While it had been known in a general way prior to this visit that the Appalachian Section, of which Knoxville is the geographical and populistic center, had wonderful possibilities in the way of water-power and wonderful resources to be developed with the power so generated, these facts were much more impressively fastened upon the minds of those who came for a visible demonstration.

It is not the purpose of this paragraph to give a detailed account of the visit of the distinguished body, as that will be done by those who will report the occurrences of the entire trip. This is rather just a word of appreciation from the Knoxville viewpoint. The visitors found at Cheoah, just a few miles removed from the metropolitan center of Knoxville, an overflow dam that will be finished within a few months, and which will be the highest overflow dam in the entire world. Forty feet could be added to the tremendous fall of Niagara, and it would still be just the height of this East Tennessee overflow dam. Some 300,000 horsepower is the development expected, but the marvelous part of the lesson taught by this physical and visible demonstration is the fact that there are dozens of other water-powers in this immediate vicinity only awaiting the touch of the magic wand of capital and engineering skill to be turned into active power and into financial and profitable enterprises. This is demonstrated in detail by the excellent paper read before the society at its night meeting by John A. Switzer, professor of hydraulic engineering, University of Tennessee, and which will be published in full in the reports of the society's visit. The very places were pointed out, figures were given and photographs of the undeveloped power sites were thrown upon the screen.

Perhaps no other section of the United States is so blessed in undeveloped water-power as this immediate section of the Appalachian South, but even with this statement the story is scarcely half told, for there lies in combination with these undeveloped resources a perhaps unequalled number of mineral deposits to be worked into commercial value through the medium of electric power thus capable of development. Just to the east of Knoxville and in the same county lie tremendous zinc deposits. To the South are the aluminum works. To the north are the tremendous coal fields, and to the west and southwest lie iron, barytes and the famous copper deposits of the Ducktown Sulphur, Copper & Iron Co. and the Tennessee Copper Co. There are other minerals, such as manganese, in large quantities just at Knoxville's door.

The visiting electrochemists were impressed with the fact that nature had seemingly pointed its finger at Knoxville as the logical place in the United States for brass factories, smelters of different kinds, by-product plants and various manufacturing enterprises.

An actual looking upon the mountain ranges that surround the city make very impressive the fact that, in addition to its other favorable points, Knoxville was blessed with an unusually safe location, and the railroad map demonstrates its availability as a distributing point.

In other words, the convenience of water-power, natural resources, safety and availability for distribution was found to exist.

Knoxville is grateful to this distinguished body of

gentlemen for its visit. It believes that the visit will prove mutually beneficial and that it will be the beginning of the development of an almost unlimited storehouse of resources for the benefit of the individual investor and the entire country, which just now it is the purpose of all professions so loyally to serve.

Come again, gentlemen of the American Electrochemical Society, either in a body or as individuals. A warm welcome of grateful appreciation awaits you.

Future of Muscle Shoals District Bound Up With Electrochemical Development.

WILLIS G. WALDO, Chairman Reception Committee Muscle Shoals Districts, including cities of Sheffield, Florence and Tusculumbia.

There have been a number of associations and societies which at various times have, in a body, visited Muscle Shoals during the past few months. Among these many visitors there were none so well qualified to judge of the merits of the Muscle Shoals development, present and proposed, as the members of the American Electrochemical Society who visited the great power site last week.

The MANUFACTURERS RECORD, in urging the Southern tour of this society, has, we believe, given effective assistance to Southern industrial development by bringing to the attention of these experts on electric power utilization the remarkable combination of advantages which the South offers in the electrochemical field. We were delighted to see them come, and it was a source of real regret that their visit to Muscle Shoals and its nitrate plants was necessarily so brief. They came 127 strong, and their speakers averred that on the 2d of May Muscle Shoals made 127 new friends.

Words fail us when we attempt to express our appreciation of this opportunity to show these experts something of our resources in power and raw material which will shortly be available for their use. The future Muscle Shoals is largely bound up in a most intimate way with the development of the electrochemical industry in our section, and the benefits of last week's visit will grow and multiply with the passing of the months and the increasing of our developments.

May we not take this opportunity to reaffirm to our new friends that at Muscle Shoals they will find, when they return in the future, a most cordial welcome and a widespread spirit of whole-hearted co-operation?

Right Men Brought in Touch With Material Wealth of the South.

WALLACE L. CALDWELL, Chairman Reception Committee, Birmingham, Ala.

I was indeed gratified when, some months ago, I first learned of the proposed trip of the American Electrochemical Society through the Appalachian South. We in Birmingham felt vitally interested in this visit, and when definite arrangements had been made for the stop in Birmingham we were greatly pleased. I felt, as did all of the leading business and technical men of Birmingham, that this trip would constitute one of the most important and significant meetings ever held in the South.

This trip of the American Electrochemical Society was important because it gave the members of the society, who are the leaders in the various fields of chemical and electrochemical endeavor, an opportunity to see for themselves some of the limitless resources of the South. They saw something of its mineral wealth, its developed and potential water-powers, its large and rapidly expanding industries, and lastly, some of its leading cities and their people. For many years the MANUFACTURERS RECORD has been an earnest advocate of the South's resources and possibilities, and doubtless every one of our guests had some knowledge of this natural wealth. We believe and trust, however, that the actualities which they saw far exceeded their expectations.

The great significance of this trip was that it brought the right men in touch with the material wealth of the South. Without the vision and genius and untiring effort of such men our resources will be developed but slowly. It is not too much to hope that the union of these men with this natural wealth will be accomplished and that we may see in the South one of the greatest centers of chemical industry in the entire world. We of Birmingham do not doubt but that the very heart of this center of industry will be here in Birmingham.

The stay of our guests was all too brief. We should like to have shown them more of our city and to have

known them better. We trust that some of them will return to stay with us always. They may be sure of a whole-souled welcome into our business and social life. Even in the brief period they were here with us we discerned what splendid men and charming women they were.

The Birmingham committee extends a most hearty invitation to the American Electrochemical Society and to its individual members to visit us again.

Serious Labor Shortage in Mississippi.

Jackson, Miss., April 27—[Special.]—Lumber mills in Mississippi working on Government contracts are up against a serious labor situation, and many may be forced to close down within the next few weeks unless something can be done.

Cottonseed-oil mills, and, in fact, every sort of industrial plant, are feeling the shortage keenly. In the month of May upward of 2000 negroes will be sent to army training camps, and 2000 able-bodied workmen removed from the State at the present time means that some mills will have to quit.

Negro women are being used in many mills, and are proving satisfactory in some capacities, but there are many tasks they cannot handle, according to the managers of these enterprises. There is no white laborers available. Thousands of young white men volunteered in the earlier stages of the war, and the draft has taken as many more.

Farming operations are in full swing at this season, too, and the patriotic efforts of the farmers to increase food crops have led them to use as much labor as they could get. A big cotton crop last season which brought unprecedented prices took many negroes to the country last fall, and these are busy trying to grow another crop.

Incidentally, late frosts which delayed planting or caused replanting seem certain to help the boll-weevil to such an extent that cotton farmers will be up against a serious situation this fall, and the farmer who is raising foodstuffs will have the decided advantage.

The Federal Department of Labor has an agent here to assist all laborers to find work and to help solve the labor problem generally, but the big problem is to find enough able-bodied men to carry on industry and farming, and the solution is not yet in sight.

Government to Expend About \$25,000,000 at Charleston, S. C.—To Construct Immense Terminal Facilities.

Reports from Charleston, S. C., state that the Mason & Hanger Company, which was awarded a contract by the War Department for the construction of extensive shipping terminals at North Charleston, is actively engaged in securing men and material in order to push forward as rapidly as possible the work of construction when final instructions have been received for beginning the work.

The company has established a local office at 209 Meeting street, and, it is said, will use as many as 10,000 to 15,000 men at one time. The work of building the terminals may take six or seven months.

The plans include concrete piers with a frontage of 3000 to 5000 feet, concrete warehouses and quarters for the men in charge of the depot. In addition, a \$500,000 corral will be built for the accommodation of 10,000 horses, and work on this has already begun.

It is stated that Major J. L. Lee will supervise the construction, and that approximately \$25,000,000 will be expended.

War Convention of Machinery and Supply Trade.

A war convention of the machinery and supply trade is to meet at the Hollenden Hotel at Cleveland, May 13-17, inclusive. Four national organizations will take part in the convention, namely: National Pipe and Supplies Association, National Supply and Machinery Dealers' Association, Southern Supply and Machinery Dealers' Association, American Supply and Machinery Manufacturers' Association.

A strong program of speaking has been arranged, and a large and representative attendance is anticipated. All subjects to be discussed will aim at the co-ordination of efforts towards speeding up the munitions, airplane and ship program, as well as to keep the industries on a stable basis for meeting the strain of after-the-war conditions.

Will North Central Texas Become a Leader in World's Oil Production?

[Special Dispatch to Manufacturers Record.]

New York, May 6.

Texas is entering upon a new and greater era in the development of its petroleum resources as a result of the discovery of oil in paying quantities at depths below three thousand feet in the North Central part of the State. The first well in this territory was completed last October by the Texas & Pacific Coal Co. at Ranger, in Eastland county. In the intervening six months it has produced more than 125,000 barrels of high-grade petroleum, and it is still flowing.

Another well of similar caliber was completed by the same company in the same locality in March, while north of Ranger, about fifteen miles, the Texas Company in March brought in a thousand-barrel well in the southern part of Stephens county.

The performance of these wells has convinced oil operators that North Central Texas, in the years to come, is to take its

place with Oklahoma and Kansas as a very important source of petroleum supply.

The new development is on a direct line southwest from the oil fields of Kansas and Oklahoma, and the area in which drilling is under way is roughly two hundred miles long and fifty miles wide. In this area it is confidently expected by the operating companies that many prolific oil pools will be developed.

North Texas has been producing oil from shallower depths for a number of years past. The importance of the recent discoveries lies in the fact that the wells are considerably deeper than any which heretofore have proved productive in this territory.

The output of all wells, old and new, in North and North Central Texas is now close to 1,000,000 barrels per month.

H. S. REAVIS, Editor
Oil Trade Journal.

Great New Petroleum Supply Indicated in North Central Texas Field

[Special Correspondence Manufacturers Record.]

[The new source of petroleum supply now being developed in North Central Texas gives promise of becoming one of the greatest in area, in total production and in length of life that has ever been discovered on this continent. In twelve counties oil has already been found, and one gigantic company, with holdings of 270,000 acres, has producing wells 25 miles apart. In the opinion of old oil men the significance of this fact lies in the identical character of the oil-bearing sands and their depth.]

An amazing outline of possible production in the new field follows a letter from New York describing present activities.—Editor Manufacturers Record.]

New York, May 2.

That Texas is on the eve of a tremendous new oil development is the opinion of old oil men who have been on the ground and have studied conditions there.

When the Texas & Pacific Coal Co. brought in its well at a depth of 3400 feet last October, and subsequently developed a producer at something like 3900 feet 25 miles distant from the first well old oil men became profoundly impressed with the possibilities of developing one of the most important oil fields the country has yet known. While those of conservative turn of mind point out that nothing is certain in oil or anything else beneath the ground that has not been demonstrated by the diamond drill, it is nevertheless a well-known fact that deep wells give greater promise of large production than shallow wells, and it is regarded as a very significant fact that deep wells have been brought in here at a distance of 25 miles apart and in identical sands. If further development work demonstrates that even a part of the interesting territory is oil-bearing ground, it is easy to figure out that here indeed is one of the greatest oil fields that has ever been discovered.

The holdings of the Texas & Pacific Coal Co. amount to 270,000 acres; 70,000 are owned in fee-simple and 200,000 are under lease. This enormous holding would, if developed to an extent that now seems possible, make the Texas & Pacific Coal Co. a fabulously great oil producer. But great as is the territory controlled by this one corporation, it is but a fraction of the territory within the new field, for it is declared that the oil-bearing area of this new Texas field embraces approximately 6,400,000 acres. The field extends from the Red River southward through Clay, Archer, Young, Jack, Wise, Stephens, Palo Pinto, Eastland, Comanche, Brown, Coleman, Mills, McCulloch and San Saba counties. All through this territory drilling has been carried on for some time, and around Brownwood a shallow field was developed some time ago. So numerous were the wells in this section that a writer recently declared that every man in Brownwood either had or could have an oil well in his back yard.

The deep drilling which has been carried out in various parts of the territory has given the field a vastly greater importance in the eyes of substantial oil interests than could possibly have followed the bringing in of any number of shallow wells. Altogether there are some 300 new wells being drilled in the North Central Texas field, as it is called, and the present flowing wells

in the field are producing at this time about 5400 barrels per day.

The big interests in the oil world are already in the new field, the Prairie Oil & Gas Co. having arranged to construct a pipe line from Cushing, Okla., into Eastland county, this field. The Sinclair Oil & Gas Co. has recently announced that it is making a survey for a pipe line to extend from Healdton through this field to Houston, Tex. The Magnolia Petroleum Co. and the Texas Company have holdings which they are developing, and the Texas Company is constructing a pipe line from Fort Worth.

The interest of the entire petroleum world is keenly centered in this new Texas field. A large degree of local excitement is reported, although conditions that existed in Beaumont following the drilling of the first Lucas gusher are not likely to be duplicated. For one thing, deep drilling is no poor man's game, as it takes from \$30,000 to \$50,000 to drill a 3500-foot well. Penurious promoters and lightly financed wildcatters would hardly find this an inviting field. Nevertheless, universal interest in the field is certain to vastly increase as the promising conditions for big oil yields are more clearly understood. A great development is promised, its rapidity, however, depending very largely on the ability to get machinery, pipe and materials for drilling and storing the oil.

To the Texas & Pacific Coal Co. belongs the credit

for having discovered and developed this new field. This company was incorporated in Texas in 1888 to operate coal mines in Erath, Palo Pinto and Eastland counties, Texas. It has been a continuous and successful coal producer, although operating on only a 27-inch seam of coal. Beginning in 1895, 4 per cent. dividends were paid, and since 1899 the dividends have been practically on a 6 per cent. basis. The company originally owned 29,000 acres of land, which were subsequently increased to 70,000 acres in fee-simple. With the original intention and design of securing an ample water supply for Thurber, the company's mining town, extensive diamond drilling in the territory was engaged in by the company. In the course of the drilling a gas pocket was encountered, and following this development the holdings were increased from time to time by the purchase of some 40,000 additional acres. Further extensive drilling was engaged in, so that altogether some \$200,000 was expended in prospecting. Following the showing of gas and occasional traces of oil, the company quietly took over lease holdings on additional acreages until the present enormous body of 270,000 acres has come under the control of the company.

The authorized capital stock of the company is \$4,000,000, all of which has been issued. Shares are of par value \$100. There has been no disposition on the part of the company to engage in stock speculation. Unique in the history of companies of this kind, the stockholders were kept fully informed of every development whenever gas or oil was struck. As a consequence there has not been much open trading in the stock of the company, the original owners holding on to their shares, as a rule. It is reported that such stock as has changed hands in recent months has been sold around \$650.

The general office and mines of the company are at Thurber, Erath county, Texas; the New York office, 24 Broad street. The officers are: Edgar L. Marston, president; E. C. Converse, vice-president; W. K. Gordon, second vice-president and general manager; Edgar J. Marston, treasurer; S. Mims, secretary, Thurber, Tex. The directors are E. L. Marston, Joseph C. Baldwin, Jr., E. C. Converse, A. G. Milbank, E. J. Marston, New York, N. Y.; R. H. Stewart, Dallas, Tex.; W. K. Gordon, E. S. Britton, S. Mims, M. A. Williams, Thos. Hall, Thurber, Tex.

Are These Oil Forecasts Within the Range of Possibilities?

[Special Correspondence Manufacturers Record.]

Ranger, Texas, May 2.

More than 25 years ago the geological department of this State made a survey of the extensive region in Central Western Texas that is now being rapidly developed into an unbroken oil field more than 200 miles north and south by 50 miles east and west. The report of that survey was to the effect that this big scope of territory was underlaid with an oil bearing formation. No public attention was attracted to the report for the reason that at that time crude petroleum had not been discovered in Texas. Its existence passed out of mind

and it was not until recently that the report came to light, and it is being used now by oil operators and prospectors as a guide to the location of wells.

It is stated by men who have been engaged in the oil industry for many years in various parts of the country that it has already been thoroughly established by the bringing in of more than 300 producing oil wells at shallow depth in the area extending from near the Red river south through more than a dozen tier of counties that it is the largest known oil field in the world. Dr. J. A. Udden, director of the Bureau of Economic Geol-

ogy and Technology of the University of Texas, who has investigated the field, concurs in this view.

It is predicted by expert oil men who have gone over the territory thoroughly that it will contain within two years not less than 1000 producing wells, each giving an average yield of approximately 1200 barrels per day, or a total of about 438,000,000 barrels per year. When the fact is considered that the total petroleum production of the whole United States for the year 1917 was approximately 320,000,000 barrels the possible magnitude of this new source of yield may be realized. The prediction that the full yield here may soon reach 438,000,000 barrels a year is based upon well founded conditions, it is claimed. In support of this view it is pointed out that there are already about 500 shallow producing wells scattered throughout the region that is known to have an oil bearing formation. These wells range in depth from 200 to 300 feet and have an average production of only about 10 barrels per day. The significant feature of the situation, however, is that wherever a well has been put down to a depth of 2800 to 3200 feet an oil flow of 1000 to 1500 barrels per day has been obtained.

It is no longer a theory in the minds of oil operators as to the production possibilities of this vast area of country. In no other field in the world, it is stated, has there been proved such a certainty of obtaining oil in every well that is put down. As further evidence of the confidence which is had in the new field it is cited that all of the larger producing pipe line and refining companies are leasing all available acreage and are drilling wells and laying pipe lines to take care of the new production. Three of the largest subsidiaries of the Standard Oil Co. have entered the field, three small refineries have already been erected, and sites have been purchased for the construction of several additional plants of large capacity. So assured is the production that the operators do not consider that they are taking any chances in putting down a well anywhere upon the 10,000 square miles of territory that is underlaid by the oil-bearing strata.

That the prediction that there will be 1000 producing wells in the field within the next two years is a modest view of its possibilities may be readily seen by the statement that the area that is now regarded as being practically proved in the matter of yielding oil embraces approximately 6,400,000 acres. It would be necessary to bore one well only upon each 6400 acres to make the 1000 wells. As a matter of fact there promises to be no limit to the development of the region except the existing scarcity of oil-drilling equipment and pipe line material. In many of the older fields, particularly those of the Gulf coast region of Texas, during the height of their production one or more wells was put down upon each acre. If that practice should ever obtain in this region there could be drilled 6,400,000 wells without crowding.

Of course, no one expects anything like this enormous yield to be obtained, and those who talk in such figures merely do so to lend impressiveness as to the prospective magnitude of the new field. It is regarded, however, by men who are competent to judge the situation that this new oil district is the biggest thing that has ever entered into that industry with the possible exception of the Gulf coast fields of Mexico.

Dr. Udden Conservatively Forecasts Gradual and Long Continued Oil Development in Texas.

In response to an inquiry from the MANUFACTURERS RECORD, Dr. J. A. Udden, director of the Bureau of Economic Geology and Technology of the University of Texas, wires from Austin, Tex., a somewhat modified opinion as to the magnitude of the new North Central oil field of Texas. Elaborating his views of Texas oil conditions, he expresses the belief that future development will bring to light many fields of moderate size rather than any one field of unusually large dimensions. He looks for a gradual development, to continue for many years before the maximum production is reached.

Dr. Udden's dispatch follows:

"I cannot have said about any new oil field in Texas that it will be the largest oil field in the world. No man can foresee any such detail in oil development; but I admit that I may have emphasized my belief in the coming importance of this State as an oil producer, and particularly in the significance of the occurrence of oil in the deep-lying 'bend' formation in the north central part of the State. Deep-lying supplies are apt to be lasting. The shales of the 'bend' are thick, and at least in part highly bituminous. There is little doubt

that this formation underlies more than a score of counties. It can be reached by the drill at a depth of from 3000 to 4000 feet in one-half of these counties. Of course, we cannot expect oil pools to underlie more than a fraction of this area, but if we think of this extent of territory as a whole, and if we consider the chances of oil pools to be discovered also in the overlying deposits and regard all this as one field, it will be a large one. My own guess is that future development will bring to light in this area many fields of moderate size rather than any one field of unusually large dimensions.

"Texas has other important oil and gas reserves. First, a quadrangular area in the northeast part of the State 150 miles wide and nearly 200 miles long, underlaid by the productive horizons of the Corsicana and of the Caddo fields in the cretaceous.

"Second, a belt from 10 to 50 miles wide extends 450 miles along Balcones escarpment, in which the cretaceous oil-bearing horizons may be reached at from 300 to 2000 feet below the surface. Here may, perhaps, also be found buried igneous bodies that may yield oil, as at Thrall.

"Third, under the Comanchean, on the Edwards Plateau, the Pennsylvania sediments lie at from 500 to 2000 feet over an area of some 10,000 square miles. This region is as yet untouched. It should be subjected to refined and extensive geological work first.

"Fourth, a fringe around the Marathon uplift, with a northeast extension of considerable but unknown length, holds out some promise.

"Fifth, the Permian has given some oil near Toyah. It lies within reach of the drill over an area of 60,000 square miles in the northwest.

"Sixth, the Gulf coast, hitherto leading in production, no doubt yet will give us some new fields.

"Development in Texas has been slow, due to complexity of our geologic conditions. In other States these have been relatively simple. Texas oil pools occur in three different rock series and show unusual variations in structural types. Our strata oil fields involve several unconformities whose nature is as yet in many cases only to be conjectured. Lack of exposures hamper the geologist in the low plains country. Development will certainly depend in this State to a great extent on the skill of the geological profession. Our oil rocks vary from sand and marl through shale and limestone to serpentine. Much drilling will be deep. The size of likely territory will be greatly enlarged when we shall begin to go down 5000 feet.

"Everything considered, I look for a gradual development to continue for many years before the maximum production is reached in our State."

Patriotism and Food Production Now Chief Concern of Mississippians.

Jackson, Miss., May 4—[Special.]—"On the first of January, 1918, only 10 per cent. of the people in Mississippi had declared war on Germany. On the 1st of May 90 per cent. had entered a solemn declaration of war against the Kaiser and all his works, and we'll make it 100 per cent. in a few more weeks if the present tide of Americanism continues to sweep over the State."

This striking declaration by J. E. Culkin, Superintendent of Education for Warren county, made at a meeting of teachers here, brought cheers and applause. Mr. Culkin is one of the most prominent educators in the State, and has recently spoken in all parts of it in the interest of various patriotic movements.

The 1500 teachers of the State, in their annual convention here, not only devoted the greater part of the meeting to discussion of war gardens, Thrift and War Savings Stamps, Liberty Bonds and the German Emperor, but went unanimously on record as believing President Wilson right in his position toward Germany and worthy of full support from all loyal Mississippians.

Meeting the same week as the teachers, the lawyers of the State heard a ringing address by Assistant Attorney-General William C. Fitts on the war, and applauded him to the echo. Mr. Fitts traced the work of German propagandists in this country through all its various phases, and told of the work of the Department of Justice in running down spies and plotters.

The two conventions are perhaps the most representative held in the State. Both were filled full of up-and-doing patriotism—eagerness to be of service to the Government, and realization of the menace of German victories in the field.

There is no longer any lethargy in Mississippi so far

as the war is concerned. Towns and rural communities alike are busy and growing busier every day. For once the State has forgotten politics, in spite of the fact that there are Congressional elections in all districts, and a warm Senatorial fight in August.

Teachers and lawyers reported the movement for food crops progressing splendidly in all parts of the State, with prospects for even greater production than last year. Especially will this be true of the pork production. The State will come close to doubling its hog production of last year.

A State-wide campaign to stamp out hog cholera is under way, with agents of the Federal Bureau of Animal Husbandry leading, and indications are that the disease will soon be nothing more than an unpleasant memory.

Agricultural extension forces are still fighting for increased production of all grains and forage crops. The cold spring has caused cotton to get a bad start and has discouraged many who would otherwise have put in large acreage of the staple.

The early spring weather has been ideal for the boll-weevil, and wise planters are trusting to corn, soy and velvet beans and the other food and feed crops.

Coal Production for April 4,400,000 Tons Over April of Last Year.

The Geological Survey reports that the week ended April 27 recorded not only the highest rate of production of bituminous coal during the past 12 months, but the third successive week of rising production.

Production of bituminous coal (including lignite and coal made into coke) is estimated at 11,668,000 net tons, an increase of 5.7 per cent. over the preceding week. The average production per working day is estimated at 1,946,000 net tons, compared with 1,840,000 net tons last week and 1,680,000 net tons during April, 1917.

Production for the month of April, 1918, is estimated at 46,478,000 net tons, an increase of 4,400,000 net tons, or 10 per cent., over April of last year. Production for the four months ended April, 1918, is estimated at 181,902,000 net tons, an increase of over 5,000,000 net tons or 3 per cent., compared with the same four months of 1917.

The production of beehive coke during the week ended April 27 is estimated at 652,000 net tons, compared with 614,000 the week previous. The average daily production is estimated at 100,000 net tons, an increase of 7 per cent. over last week.

Anthracite shipments slightly increased during the week of April 27, nine roads reporting 39,522 carloads, compared with 39,130 during the preceding week.

Improved car supply and better labor conditions caused beehive coke production in the Connellsville and adjacent districts to reach the highest point attained this year. Sixty-one of the principal operators reported production of 324,800 net tons during week ended April 27, or 75.2 per cent. of their full-time capacity.

The same operators shipped 166,450 net tons of coal.

An increased supply of by-product coal during week ended April 27 resulted in the largest production since the weekly statistics on by-product coke were begun. The plants of the country operated at 80.1 per cent. of maximum capacity as compared with 88 per cent. the week previous. Out of a loss of potential capacity of 10.9 per cent., only 5.1 per cent. was lost, for lack of coal. No labor difficulties reducing output were reported. Losses due to repairs to plant decreased slightly.

American Bank Reporter.

The American Bank Reporter, corrected and revised to October, 1917, is issued. In its pages are to be found an alphabetical list of all banks in the United States and Canada, including National, State, Savings and Private, arranged by States, showing the names of officers, correspondents in New York, Philadelphia, Chicago, Boston and other large cities, the charter number of each National Bank, capital, loans, deposits, undivided profits and surplus, the principal loan, trust and investment companies, the numerical system of the American Bankers' Association, and much other valuable information, including some maps of all States and Territories and of Canada. The American Bank Reporter, which for 81 years has been issued in March and September, with "new bank" supplements, and a desk edition in June and December, is printed on good paper, is bound in blue cloth with silver lettering, and is published by the Steurer Publishing Co., 149th street and Bergen avenue and 52 Broadway, New York.

[From El Paso Morning Times, April 24.]

Intrigue of Germany Had Been Going on for Many Years Before War

**Dr. Newell Dwight Hillis Tells Astounding Facts Revealing Hun Duplicity,
Treachery and Inhumanity in Fighting Allies in France.**

PERTINENT PORTIONS OF ADDRESSES.

Pan-German Empire, covering the earth, with Berlin as the capital, dream of Teuton for many years and carefully planned.

Kaiser's scheme so well carried out that already Germany sees many of her aspirations almost realized.

Domination of commerce of the world at bottom of Hun ambitions and iron made the idol and stepping-stone to greatness.

German diplomat reports to his master that Americans are simple, ingenious and innocent people, easy to fool.

Denmark and Holland marked for conquest and already under domination of Germany.

Professor Hugo Muensterberger, noted scientist and professor in Harvard University, head of German spy system in United States, and his death due to cyanide of potassium on eve of revelation of his duplicity.

Germany making conquered nations pay cost of maintaining war and slowly murdering all conquered people so their lands may be seized and colonized by native Germans.

Germany's intention, already partly carried out, is to exterminate all conquered people, as witness her work in Belgium and Armenia.

Kaiser passes by great men of the world and forms alliance with the Sultan of Turkey, despised by all Christian nations.

Two places for every girl or woman to avoid—Hell and Germany.

Germany has violated treaties without compunction, and now is lying about atrocities committed in Belgium, France, Armenia, Italy and other countries, but evidence is too clear to be disputed.

Buy Liberty Bonds and thus help destroy the German nation, for that is the only way to save the sanctity of American homes and families.

Horrible German atrocities committed under the supervision of German officers and sanctioned by the German Government were revealed and actual pictures of brutality, murder, rapine and lust committed by the Huns were shown by Dr. Newell Dwight Hillis last night in the courthouse auditorium. Three thousand people heard the lecture and saw the official stereopticon views.

In plain words Dr. Hillis told how six-year-old girls were ravished by the Huns; how others were poisoned by their bodies being infected with blood from the dead; of babies being butchered for amusement; of girls being nailed to doors and walls, and of men being hung on meat hooks to slowly die.

Reveals German Tactics.

From the German Handbook of Military Tactics the speaker read: "The new German warfare is not directed against the armed forces, but against the unarmed people in the rear," and "atrocities is the greatest military tactic in the world." Dr. Hillis then gave examples of how the German soldiers carried out the teachings of the handbook, which was written by the chief of the department of German military instruction.

"You men and women think you know what war is. You can no more realize what hell is by hearing a sermon on hell or realize what it is to burn alive by reading a newspaper account of a fire," said the speaker. Death, he declared, was often to be welcomed to treatment given men, women and children by the German officers and soldiers.

After seeing what he has seen, Dr. Hillis said he could understand how fathers and mothers thanked God that their daughters were dead.

Huns Mutilate Children.

Girls six and eight years old have been ravished by the hundreds, and parts of their bodies cut off in zest by the Huns, the speaker said. He gave many instances where girls were abused until they could never be mothers, and how boys were treated by the Huns so they could never be the fathers of children.

The speaker told of a man 70 years old being killed and thrown down the steps and the old man's wife being tied down and abused by German officers until dead. This, he said, was not an isolated case.

He showed official pictures at the end of his talk which proved much of his speech.

Many examples were given of how, after villages had been looted, men and babies were slaughtered and girls and women carried off.

Diaries Reveal Startling Things.

Each German officer keeps a diary. At the end of each day he writes down what he has done and seen during the day. At stated times this information is collected and used for military information. These diaries reveal startling things.

Dr. Hillis then read from the diary of a captured German extracts telling of the first of the campaign in Belgium, part of which read: "It is great sport to shoot the old men down. We had no reason to loot this city, but by a ruse we planted concealed weapons here and there, and that gave us the excuse. Sometimes I have three bottles of champagne a day, and I am living like a god here in this town."

He told of how, in invading a Belgian city, a German officer had bayoneted a little girl two years old, and, with her blood streaming down over his shoulder, had marched at the head of his company through the ruined city.

Crucify Babies.

He also told of seeing a barn door, on one side of which was a calfskin stretched to dry and on the other side the crucified body of a baby, with the words inscribed underneath, showing the German soldier's idea of humor: "Two calves."

The speaker told, as an example of what is being practiced whenever possible, of a German officer holding an aged woman while another officer slowly burned her son to death with a torch.

Dr. Hillis exhibited a German firebrand which the Huns use in setting fire to buildings. The torch is made of iron and asbestos. The end is soaked in kerosene, and when lighted will set fire to 15 or 20 buildings without relighting.

Germany Is Doomed.

Germany is coming to its end, declared the speaker, and prolonged cheers followed his declaration that "God is not dead and Germany is doomed."

The Kaiser has had God and the devil mixed for four

years, and the Kaiser's real God is the devil himself, he said.

"Every German officer and soldier carries with him in the right vest pocket of his uniform a little token, a little round disk," Dr. Hillis said, holding up one of the pieces. "On the top of this token you see the head of the German conception of God—a stern-looking person all covered with white hair and whiskers, and holding in one hand a sword to strike terror into the world. Below this there is inscribed these words: 'Strike them all dead. The day of judgment shall ask you no questions.' Each German has one of these, and it is his creed. Can you imagine anything more blasphemous?"

"There are two places I never want my son and daughter to go," declared the speaker; "one is to Germany and the other is to hell."

Spent Eleven Summers in Germany.

Dr. Hillis spent 11 summers in Germany. He said during his visits there he did not realize that Germany intended to carry out the pan-Germany doctrine and intend to conquer every nation in the world and make the Kaiser ruler of the universe.

Dr. Hillis praised Great Britain for the protection it has given America. He gave as his opinion that had it not been for Great Britain, Germany would now be exacting tribute from the United States.

"England threw an army between the United States and Germany. With its fleet Great Britain kept Germany away from our shores," he declared.

No German-Americans.

The man who wants Germany to win is the man who vilifies Great Britain, and any man who vilifies Great Britain should be arrested at sunset, he declared, tried at midnight and shot at sunrise.

"There is no such person as a German-American," said the speaker; "a man is either an American or a traitor." At this point in his speech the speaker was forced to pause several seconds for the cheers to subside.

Lauds French Women.

The French women were lauded by Dr. Hillis for the spirit in which they are bearing the burdens of the war. He did not overlook the work of the English women in the industries while giving the women of Europe their dues.

Pictures were shown on the screen of women in France dragging plows, cultivating fields of wheat. Their oxen had been killed for food for the soldiers and their horses had been sent to the battlefield.

Pictures of old men who were shot, and of others having their arms and legs cut off and left to bleed to death were shown. A picture of a woman's body nailed to a board, stripped of its clothing, was also exhibited.

Scenes of big orchards cut down and of churches and cathedrals razed were also in the collection.

[This condensed summary of Dr. Hillis' marvelous portrayal of Germany's war plans and atrocities as given by the El Paso Times is a brief statement of his full address as printed by the MANUFACTURERS RECORD some months ago. The British Government was so impressed with this address that it printed for distribution 5,000,000 copies and now 5,000,000 additional copies are being printed in London. This pamphlet can be had in any quantity desired from the MANUFACTURERS RECORD at 5 cents a copy or \$4 a hundred. Every business man in America should distribute it in his community.—Editor MANUFACTURERS RECORD.]

Rice Land Reclamation in Louisiana.

New Orleans, La., May 4.—[Special.]—Fifteen thousand acres are to be opened to rice culture and salt-water depredations stopped in the Atchafalaya-Teche-Vermilion region by the canal system of the new company of that name. The system will cost \$400,000 and will be completed by the time the rice is harvested, in August.

The Atchafalaya River, from which abundant fresh water always is obtainable, will be connected with Bayou Teche by a canal and with Bayou Courtaubieu. A heavy stream of fresh water will be let down by this route into Bayou Vermilion. This stream will have such pressure and be at such a high level that it will prevent low-level Gulf waters from backing into Vermilion Bay and thence into the bayous.

Director Replogle of War Industries Board on Acute Situation in Coal and Steel, Due to Inadequate Transportation.

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 4.

The steel mills of the United States are producing their full capacity and still there is a call for more steel to meet the growing demands of the war.

J. Leonard Replogle, director of steel purchases of the War Industries Board, frankly states that there is a need for every ton of steel that can be obtained, but in conversation with a representative of the MANUFACTURERS RECORD he indicated that there are distinct limitations upon increasing production at the present time.

"Until the fuel production and the railroad transportation are 100 per cent. efficient there is no use in launching into further projects for enlarging steel production in this country," Mr. Replogle declared.

It was indicated that these two problems are the most serious which now confront the industrial world, and that without a full supply of coke for the operation of the furnaces, and without prompt handling on the railroads, any attempt to increase the production of steel by building new plants would merely add difficulties to an already complicated situation.

While it is generally realized that any expansion which may be possible in the future will be dependent to a large extent upon development of the Southern steel output and the utilization of the vast store of resources which can be obtained in that section, Mr. Replogle, as an impartial director of the steel business of the nation, is loth to make any expression in regard to the merits possessed by any particular part of the United States, as compared with another, in the possibilities of industrial improvement. He is of the opinion, however, that when fuel and transportation conditions will warrant a further output in steel, the business will expand in those fields which offer the greatest opportunities for success.

The majority of steel men believe that the future growth of the industry must be away from the congested Pittsburgh region and the Eastern States. It is this centralization of the national output which is responsible for a considerable amount of the delay to shipments and the difficulty now experienced in filling orders.

The situation in regard to the shipyard steel has improved, Mr. Replogle stated. There again the transportation has been the principal factor responsible for the shortage, and further back the loss in steel production which can be attributed to the fuel famine of the past winter. At the present time, however, the unprecedented efforts at the plate mills are making up the shortage to some extent. In addition to paying part of the debt to the Allies, by sending shipments of steel in return for the 700,000 tons advanced by them to General Pershing to supply his immediate needs, 100,000 tons of steel plates are being turned over to the Emergency Fleet Corporation each week. At this rate it is stated that 8,000,000 tons of shipping can be completed in a year.

"I believe that Charles M. Schwab will build even more ships than he is expected to," said Mr. Replogle. "There is no other man who can get the results as well, and his appointment to the Emergency Fleet Corporation is one of the biggest things which has been done by the Government toward the prosecution of the war."

To keep up with the Government demands for steel, Mr. Replogle stated that it was inevitable that private industrial operations must cease the use of steel, except in work which is essential to the conduct of the war, and he indicated that the entire steel supply of the country eventually will be under the control of the Government and applicable to its needs. Already this control extends to approximately 90 per cent. of the output.

The fact is realized that no shortage of steel must be permitted during the coming year, and with this aim in view Mr. Replogle will take any steps which may be necessary to command the national supply.

"I believe that the present production will be sufficient," Mr. Replogle said, "but if the supplies of coke can be enlarged and the transportation increased, then a greater production would be possible—and we need all we can get."

The forecast of a fuel shortage more serious than that of last winter, which is suggested by Mr. Rep-

logle's view of the steel situation, is one which is being freely predicted in other quarters.

A readjustment of the traffic over the Eastern roads is said to be urgently needed, and unless secured the coal shortage this winter will be the worst yet experienced.

Denying these charges, the Railroad Administration points to the fact that more freight is being moved now than at any time in the history of the country, and orders for new locomotives and 100,000 freight cars have been let to supplement the present rolling stock.

The fact remains, however, that 90 per cent. of the coal operators east of the Mississippi have agreed that unless more cars are furnished it will be impossible to increase the production of coal and coke. This is the chief limitation at the present time, and to it is due the labor shortage in some of the coal fields, where the lack of steady employment has driven the men to other industries.

EARLY GERMAN DESIGNS AGAINST TEXAS.

Organized Attempts Made in 1842 to Make of Texas a German Principality.

Austin, Tex., May 4—[Special.]—Dr. Frederick Eby of the University of Texas brings to public attention the almost forgotten fact that as far back as 1842 an effort was made to make Texas a German principality. This plan, which had its origin with the nobility of Germany and was backed by the German Government, met with disaster largely because the Texas Republic was merged into the galaxy of States of the American Union. Shrewd Texas land agents also did much to thwart the ultimate plans of the German diplomats. Dr. Eby has found some interesting facts bearing upon the movement to make Texas a part of Germany among the documents that are in the archives of the library at the university. It is a matter of historical record. In speaking of that epoch in Texas history, Dr. Eby said:

"Last year we were startled by the announcement that German diplomacy, among its other sinister and bungling intrigues, had offered Texas as a bait to Mexico. The stupidity of the idea only succeeded in arousing our sense of the ridiculous. Few of the citizens of the State, however, were aware that this was not the first occasion that the overlords of Germany had turned their crafty attention to Texas. Two generations ago our imperial domain began to excite the insatiable cupidity of Prussian junkerdom, and plans were actually entered upon to dominate the infant Republic of Texas, and in time to make it a German feudalistic principality. Every citizen of Texas ought to be made aware of those historic facts, how the nobility of Germany insidiously formed a conspiracy to throttle liberty in this State and to extend the paternalistic tyranny of Prussian militarism.

"In 1842 twenty-one of the nobles of Germany and the Crown Prince of Prussia among them formed an 'Adelsverein,' known officially in Texas as the German Emigration Society. In the prospectus of the society they bewailed the emigration of so many of their subjects due to unfavorable economic conditions. Seeing it was impossible, or at least inadvisable, to check the flow of population, they decided to direct and control it along their own lines and secure 'one place' where these emigrants might establish a 'new Fatherland' in which they would find again a 'German habitat' and maintain unbroken connection with their native land.

"After long and most careful investigation," we are informed, the Verein reached the decision that Texas was the 'one' land most favorable for such a colonial enterprise. The healthful climate, fertile soil and ease of accessibility by sea to Europe had already attracted a large number of Germans. The formation of the Verein was all the more desirable because these emigrants in Texas were 'without support and protection,' had become scattered, and some of them killed. Elaborate plans were made for the establishment of the new Germany. The Verein promised to supply gratis to each settler a farm, house, tools, horses, pigs, cattle

and whatever else might be necessary for their success. The German language, religion, customs and subsequent civil practices were to be strictly maintained. 'The moral and religious education of the children the Verein considers as a sacred duty,' we read in the rescript. Schools, churches, physicians and hospitals were to be established by these paternalistic autocrats.

The colonists were admonished to play their role in the following language:

"The new Fatherland on the other side of the ocean will flourish most vigorously only when the Germans conduct themselves as they always do at home, industrious, patient, true to the good practices and law. The nobles in forming this society wish to do their part in contributing to the glory and welfare of Germany."

"How many thousands of Germans were brought to Texas in this effort to 'control' Texas and form a 'new Fatherland' it is impossible to say definitely; between 10,000 and 15,000 at least. But in spite of their seditions plans the enterprise failed most miserably. The agents of the Verein were duped by sharp land agents and the association collapsed. The real reason, however, for its failure and destruction was the union of the infant Republic of Texas with the United States in 1845.

"The plot of the junkers failed, but let no Texan forget that the territory of this imperial but thinly populated State would be the first plum to be plucked for German settlement by the ruthless hand of Potsdam.

"The facts here given are taken from works found in the library of the University of Texas."

The Loyal Spirit of Wisconsin's Capital Officially Expressed.

Madison, Wis., April 19.

Editor Manufacturers Record:

I desire to call your attention to the American Creed (Wisconsin version) prepared by Don E. Mowry, secretary of this organization, as printed in our official monthly bulletin, Community Business.

This organization is the representative central community agency in this city—the home of our "wilful Senator."

The thought occurs to me that in view of all of the facts and the circumstances, you might care to reprint this creed, and for that reason I am enclosing a copy.

MADISON ASSOCIATION OF COMMERCE.

By L. F. SCHOELKOPF, President.

AMERICAN CREED.

(Wisconsin Version)

By DON E. MOWRY.

I Believe in My Country—The United States of America—land of many peoples, who come from every thinking nation, seeking that freedom of thought, independency of action and equality of opportunity for which our forefathers fought and died in the days of 1776.

I Believe in My Country—The world's hope of democracy—founded upon the principle that all men are created without special privileges, and growing in strength through the spread of democracy and justice among her people.

I Believe in My Country—In her institutions and in her enterprises—made possible because autocratic power and military domination have no part therein.

I Believe in My Country—In the spirit of Americanism—a force destined to adjust or destroy whatever is un-economic, illogical and un-American in the interests of a greater and a freer nation.

I Believe in My Country—In her men and in her women, in her measures and in her policies. If contingencies arise which fail to follow well-established lines of Governmental policy, I promise my full co-operation in checking movements unworthy of an American citizen's support.

I Believe in My Country—In the debt of gratitude which we owe to those who have gone before us, in order that we, who live today, may enjoy the rich heritage of an independent country.

Appreciating this heritage which our forefathers bequeathed to us, in heroically establishing a Government of democracy and justice, in order that the ideals for which they stood might be handed down to their children's children,

I Pledge to the institutions and to the Government of my country my unqualified support.

I Further Pledge myself to make the supreme test of allegiance and loyalty to these principles, should occasion demand it, by giving my life for my country—The United States of America—in her hour of peril.

Prizes for War Food Essays.

Smith & Morgan, real estate dealers at Dothan, Ala. recently offered a prize of \$5 in both the High School and the Howell School there for the best essay on the subject "Food Will Win the War," and now the winners of the two prizes have been announced as follows: Joe Barnes of the High School and Bert Ripley of the Howell School. The two successful essays were published in one of Dothan's daily papers.

Cotton Manufacturers of North and South Hold Joint Meeting in New York

PLEDGE ALL ACTIVITIES TO WINNING OF THE WAR—ATTITUDE ON PRICE-FIXING — PROPOSED CHANGE IN FINANCING COTTON PURCHASES — NEW OFFICERS ELECTED.

[Special Correspondence Manufacturers Record.]

New York, May 4.

Cotton manufacturers of the North and of the South met in convention here this week. It was a joint meeting of the National Association of Cotton Manufacturers, with headquarters in Boston, and the American Cotton Manufacturers' Association, with headquarters at Charlotte, N. C. The sessions were held at the Biltmore, beginning Wednesday evening and continuing through Thursday and Friday. Incidents of the meeting were a "get-together" smoker Wednesday evening and a banquet Thursday at which Secretary Daniels was one of the speakers.

At the sessions there were addresses and discussions covering various aspects of the cotton industry, including consideration of conditions that will confront the industry after the end of the war. Strong insistence was made, however, that the paramount concern of the present is to win the war, and to this work the members pledged all of their resources and activities.

The labor problem was the subject of discussion both in meetings and in talks between individuals. How to best meet the shortage in labor was handled by efficiency experts and by practical mill men. Fuller E. Calloway, president of the American Cotton Manufacturers' Association, and head of large cotton manufacturing interests at La Grange, Ga., declared that much could be done by calling into effective action hitherto untouched sources of labor. The older men and the single women should be drawn upon to take the places of the men who have gone to the front, and colored labor should be exclusively employed in various departments of the mills.

To prevent the losses from excessive labor turnover, there should be no bidding for labor between mill men, and the surroundings of the operatives should be made attractive in every way. An outline was given of what he had accomplished in his own mill town by "enlightened self-interest" in work of this kind.

Brooding over the convention from the start as a disquieting and disturbing influence was the possibility of price-fixing by the Government. While pledging support, through resolutions adopted, of any course the Government may take, there was grave apprehension felt as to the wisdom of any price-fixing move. In the resolutions adopted it was held "that should such action be taken the interests of the country will be best conserved by applying as nearly as possible the same regulations to all industries and to all branches of the industries—the producer, the manufacturer, the jobber, the wholesaler and the retailer," and that "as the prosperity of industrial America is essential to the financing of the war, any plan for price-fixing or other control should rest upon the basis of such a return on capital invested as will continue to yield the necessary taxes and to provide funds for the purchase of the bonds required."

Another matter that gave concern was the uncertainty as to what would be the Government's attitude toward the cotton industry with reference to its classification as an essential industry. There were reports that cotton manufacturers may not be put on the preference list for coal priority shipments, and plans were at once laid to oppose the position that cotton manufacturing is not essential to winning the war. A meeting at Boston was called to take immediate steps to deal with this situation.

The newly created American dye industry received a large degree of consideration, both in discussions at the meeting and through visits by members to the very interesting and complete Textile Exhibition, which opened Monday at the Grand Central Palace, nearby, for a two weeks' period. Four floors are occupied by the exhibits, which include a complete line of textile machinery in operation, and which show cotton, silk and woolsens from the raw materials to the manufactured clothing. As showing the progress of the dye industry, the National Aniline & Chemical Co. in particular has a large space on one of the floors, where

are samples of all the colors made and also the working unit of a colorist's laboratory.

A proposed change in methods of cotton buying was one of the weighty subjects brought up for consideration through the report of a committee of which Randall M. Durfee of Fall River, Mass., was chairman. Following is the report:

The method of financing the cotton crop, representing one of the greatest assets of the country, and probably the greatest factor in stabilizing our foreign credits, has not changed for many years. Cotton is practically the only commodity the purchaser pays for before being assured of the quality of his purchase, either by personal inspection or by the Government guarantee. The financing of the cotton crop requires the same amount of money, whether purchases are financed by the buyer or by the seller, and with this the case, it should make no difference to the money market.

Under the present arrangement the shipper in the South sells to the manufacturer and draws against him a draft with bill of lading attached, receiving payment as soon as these banking arrangements are carried out. This being accomplished, neither the shipper, the transportation company, nor the bank has any further interest in the transportation, and the buyer who is hundreds of miles away is not in any position to look after the shipment, which, sometimes, remains on the platform of the original shipping point for months, although the bill of lading has been taken out for it, and even when shipped, it is liable to be delayed very considerably in transit. In addition, the manufacturer has found, to his credit, in many cases that the cotton when it arrived was not what he had supposed he had bought, and it quite often happens that whole shipments are rejected. This would be avoided if the cotton were bought payable on arrival, as the shipper would exercise greater care, and would see that the quality bought was shipped.

On account of these conditions, a movement to change the method of paying for cotton purchases was started some months ago, and in response to a questionnaire sent out by this association, practically 75 per cent. of the replies were in favor of making changes along the lines suggested. It seems to all parties who have made a study of the situation that with these changes everyone connected with the transaction will have an interest in same, and, if there is any additional cost, which some fear, on account of the changes making the financing somewhat different, it will be more than made up in the time gained in transportation and the very much less percentage of rejections which the advocates of this change look forward to.

Your committee feels that a change of this magnitude demands that all the details be thoroughly covered, and with this in view, we have arranged for a meeting at the close of our convention with the representatives of our association, of the Southern shippers, the transportation companies, and both Northern and Southern bankers. We feel that with an interchange of views it will be possible to put this new plan in operation for the coming crop, or such modifications of the same as may be deemed expedient after consultation. Your committee wishes to arrange this plan so that it will not work any hardship on the handling of the crop, but they feel that the parties who are paid for their product should stand more of the financing, and should be more responsible than they have been under the old system.

So important was this matter seen to be that an independent conference was called for today, which was attended by cotton manufacturers, bankers and cotton brokers, both of the North and South, by cotton planters and by W. P. G. Harding, governor of the Federal Reserve Board. Governor Harding favored the introduction of the 90-day draft, to be accepted by the banker, but declared that it would be most unjust to attempt to take from the cotton producer his cash market. A man of small means, as a rule, and having obligations to pay in the fall, the cotton producer is entitled to cash when he brings his product to market, he said. He believed, however, that the 90-day acceptance could be introduced with advantage to all concerned. A committee as follows was appointed to consider the plan: Cotton manufacturers, R. N. Durfee, Fall River, Mass.; Charles T. Plunkett, Adams, Mass.; Charles B. Luther, Fall River, Mass.; shippers, Joseph Newburger, Memphis, Tenn.; Charles L. Tarver, Dallas, Tex.; Gernie L. Anderson, Fort Worth, Tex.; bankers, Theodore E. Burton, New York; J. E. Bonden, New Orleans, and E. L. Rice, Memphis, Tenn.

At the election of officers held Friday Arthur J.

Draper of Charlotte, N. C., was elected to succeed Fuller E. Calloway as president of the American Cotton Manufacturers' Association. James A. Hammett of Anderson, S. C., was elected vice-president, and W. D. Adams of Charlotte was re-elected secretary and treasurer.

Allen F. Johnson of Georgia was chosen chairman of the board of governors, succeeding Mr. Hammett, and Howard Baetjer of Maryland, John L. Patterson of North Carolina, H. F. Fitzgerald of Virginia and George Lanier of Alabama were selected to fill vacancies on the board. C. L. Gilliland of Chester, Pa., the other member of the board whose term expired, was named for another term.

New officers for the National Association are: President, W. Frank Shove, Fall River, Mass.; vice-presidents, Russell B. Lowe, Fitchburg, Mass.; James Thomson, New Bedford, Mass.; directors for one year, Lewis Dexter, Manchester, N. H.; John Skinner, Easthampton, N. H.; directors for two years, Albert Blum, New York; Charles M. Holmes, New Bedford, Mass.; directors for three years, J. Arthur Atwood, Providence, R. I.; Charles B. Chase, Fall River, Mass.; Grosvenor Ely, Norwich, Conn.; Frederick L. Jenckes, Pawtucket, R. I.; William L. Lyall, Passaic, N. J.

Water-Power Development Legislation.

Washington, D. C., May 4.—[Special.]—The recent visit of the Secretary of War abroad retarded the work of the special House committee to which was referred about two months ago all legislation, and especially the Shields bill, designed to regulate the development of water-power.

No little time has been given by the committee to consideration both of the Shields bill received from the Senate and of the substitute bill proposed to the committee by the Secretary of War, the Secretary of the Interior and the Secretary of Agriculture; each of the three Secretaries being interested in some special aspect of the water-power question.

Since Mr. Baker's return from France, Representative Sims of Tennessee, the chairman of the special committee, sent to the Secretary a copy of the Shields bill as the committee had amended it. Other copies were sent to Secretaries Lane and Houston. Each Cabinet officer was asked to appear before the committee. The War Secretary, having been extremely busy, has not been able to appear. It is expected that he will notify the committee very soon that he is ready to present in person his views upon the proposed measure.

After the committee has heard the three Secretaries, no time will be lost, Judge Sims declares, before a bill and a report are submitted to the House.

A Farmer Charges Implement Manufacturers With Turning Out Bad Stuff.

A. H. BURG, Lakin, Kans.

I wonder if you would say a word for we farmer folks in your paper.

Some people delight in calling the farmers slackers. I say that while some or many of them may not be doing their best, that the manufacturers supplying us equipment are much worse as a class than any set of farmers can be.

I don't know of any firm making farm machinery or other farm supplies but ought to do better. The farm implement manufacturers put out a line of machinery so defective in material, design and workmanship that if the tools and machinery they use were as defective they surely would make a great complaint. The farmers do not want cheaply-made supplies, but do want equipment made as well as it can be made.

If the people want more supplies from the farmer, help us farmers by furnishing us with better tools.

The Cotton Movement.

In his report of April 30 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during nine months of the season, ending close of April, was 10,745,577 bales, a decrease under the same period last year of 1,087,433 bales. The exports were 3,509,917 bales, a decrease of 1,198,121 bales. The takings were, by Northern spinners, 2,186,290 bales, a decrease of 302,192 bales; by Southern spinners, 3,500,488 bales, a decrease of 79,472 bales.

Cost of Producing the 1917 Cotton Crop

By W. B. YEARY, Assistant in Bureau of Markets, Department of Agriculture, Austin, Tex.

For the last fifty years cotton has sold far below its intrinsic value. If this were not so, the cotton growers of the South would have made relatively as much wealth as the grain growers of the West.

The South holds a practical monopoly of the world's cotton trade. By reason of the conditions following the war and the curse of the system then introduced, which forced the small farmers of the South to grow cotton and depend upon the West for foodstuffs, the price of cotton has always been dictated by the buyer, and the producer has had but little control over a crop which should have brought to the South boundless prosperity.

The cost of cotton raising has never been adequately recognized, and the poverty of the small cotton grower, the negro and the white tenant alike, has been completely disregarded in the world's calculations as to how cheap cotton could be bought.

Owing to these conditions the cotton buyers of the world held a club over the South and annually beat down the price of cotton far below its intrinsic value, and even below the actual cost of production.

For these reasons the Manufacturers Record has welcomed all intelligent discussions of the cost of cotton raising, and it has for years pointed out that those who sought to beat down the price of cotton were destroying a business which under natural economic conditions should have enormously enriched the South to the benefit of the entire country.

The cost of cotton production was recently discussed in the Manufacturers Record by Mr. W. B. Yeary of the Department of Agriculture, Austin, Texas, who continues the discussion of the subject in the following article, and in connection therewith asks the Manufacturers Record to publish a letter from F. W. Davis, the Commissioner of Agriculture of Texas, addressed to President Wilson, in regard to the cost of cotton.

The statements made in these two letters are interesting and deserve the careful consideration of all intelligent business men, whether they agree in full with Mr. Yeary or not.—Editor Manufacturers Record.]

The true cost of producing cotton appears to seriously bother certain dealing interests that seem to be getting uneasy.

Last fall Fred W. Davis, the Commissioner of Agriculture of Texas, appointed a committee to make investigations to see what the 1917 crop had cost to produce. I was chairman of the committee, and did all I could to find the true cost, as did the rest of the committee. We used the figures of the Taft ranch in South Texas as the basis of our calculations because of their prominence and the accuracy with which they completed their business. Also because we knew from personal experience and observation that their figures were much lower than those of anyone else, and could not be disproven. When the number of bales was definitely decided upon by the Government, we brought our figures down to date (January 1, 1918) and announced that if the seed should bring \$60 per ton the lint would have to bring 34 cents to cover the cost of producing the 1917 crop of the United States, based upon wages at \$1 per day before the war. No one has denied these figures openly, though I learn that some New York brokers have published an exhaustive report of the cost of producing the 1917 crop and made it about one-third of its actual cost. Others who know nothing about its cultivation have insisted upon a price being fixed at from 18 to 20 cents per pound.

Recently the National Department of Agriculture has published Bulletin No. 492, giving the cost of production on 534 farms in Georgia, in which the cost on the small farms was 13.84 cents when half a bale per acre was made and 12.27 cents on the larger ones as against 10 cents on the Taft ranch, thus more than bearing out our contention that the Taft ranch figures were very low. Some have insinuated that likely the Taft ranch had a very heavy overhead expense, which caused their figures to be high. This bulletin covers farms in Sumter county, Georgia, for the year 1913, and disproves such contentions. The committee last fall claimed the Taft ranch could produce cotton 25 per cent. cheaper than the average. The figures of cost in this bulletin are 30 per cent. higher than the Taft figures, and show a production of 25 per cent. better yields than the average of Georgia for that year and 33 per cent. better than the United States. I do not mean to cast any reflections on those who made the survey and wrote the bulletin, but will say from the wording of it they appear to create the impression that the farmers were making money and doing fine. Such as the following are seen in the bulletin: "The average capital of colored tenant farmers was but \$491, yet the average income of these negroes and their families was \$506." It will be noted that negroes made nearly as good crops as the whites; hence

this applies to the whites as well. It shows a family consists of an average of about eight persons, and all who are large enough work in the field.

The average income of a family is mentioned as \$421, with the remark: "The family income is indeed very good." Is an income of \$421 per year for a family of eight "indeed very good?" Again, this work was done in one of the best counties in the South, and no doubt the best farms and farmers selected to make the test, from the fact that the average lint cotton produced per acre on 14,301 acres was 281 pounds, which is more than any community, county or State in the United States has ever produced, so far as I am advised. Certainly a special selection was made, the results really being a test of how cheap cotton can be produced under the most favorable conditions. "The season was ideal, with an average rainfall well distributed." Mention is made of the wages allowed for labor as "\$10 to \$18 per month and rations." If wages at \$1 per day had been considered, the cost would have been much higher. While the bulletin thinks the returns are "indeed very good," I notice practically all have to go in debt for making the crop, which would not be the case if a profit was made.

Regarding the size of the farms, the results are as follows: On farms of 100 or less acres, the cost per pound was 13.84 cents when the yield was one-half bale (250 pounds).

On larger farms the cost per pound of lint was less. As most of the cotton of the United States is produced by men who cultivate 100 acres or less, and the wish and desire of the nation is for small home owners, I feel that the cost of this class is the proper one to consider. I have made calculations and find where the yield is less than one-half bale per acre, that while the picking expense per acre would be reduced, the income from the sale of seed would also be reduced about an equal amount. Then if 250 pounds per acre costs 13.84 cents, 160 pounds per acre would cost 21.6 cents. So if the yield per acre in 1913 had been reduced to 160 pounds of production per acre, the average of the United States for last year, the cost of production would have been 21.6 cents per pound. Now, since the United States did not make but an average of 160 pounds per acre last year, we have from Government authority a basis to work from of 21.6 cents, and by finding the increased cost as caused by the war conditions, we can arrive at the average cost of producing the 1917 crop. The bulletin gives the following percentages of expense in production:

Labor	48.4 per cent.
Use of land	21.7 " "
Fertilizer	17.8 " "
Miscellaneous	12.1 " "

Practically all of the labor on small farms is per-

formed by the family, and their wages are a meager supply of victuals and clothes.

These articles are easily two and one-half times as high as in 1913. This would add 15.67 cents per pound to 21.6, making the cost 36.27 cents. Besides wages, all know feed for teams was three times as high, and implements and repairs doubled. Teams are more than 50 per cent. higher, and picking last fall was practically doubled, as were wages of other hired labor. The seed sold for more than double their value in 1913, but the advance in ginning, wrapping and insurance would offset it. Without going any further into detail, any unbiased person who knows anything about the increased expense of producing cotton can plainly see the average cost of producing the 1917 crop was well above 34 cents, the cost given out by the committee named by Commissioner Davis last fall, and its figures more than justified.

The Department of Agriculture of Texas does not seek to be unfair to the consumers of raw cotton, but it does know the producers have not been getting near the value of their labor nor use of their land, teams and implements. Commissioner Fred W. Davis thinks it is as much his duty as Commissioner of Agriculture of Texas to show the producers of cotton the value of it and assist them in getting it as it is to aid them in the production of their crops. Certainly there will be no further denying the statements made by friends of cotton when they say cotton has not been selling for cost of production. The yield of the entire Georgia crop in 1913 was 220 pounds, making the average cost 15.72 cents, which sold for 12.5 cents. A loss of \$16.10 per bale, when it should have sold for a profit. While the year before (1912) produced only 188 pounds per acre, which made the cost 18.4 cents and it sold for 11.5, a loss of \$34.50 per bale. We must remember this loss is based upon the lowest wages in the United States, from \$10 to \$18 per month, with rations. At the same time we must remember this is highly skilled labor, much of which has gone to the war and other work which must be supplemented with inferior and unskilled labor at greatly-increased prices.

Rations do not mean board, but means so many pounds of meat and meal per week, and if more of anything else is eaten, the laborer pays for it, he doing his own cooking. Then the South is blamed for not caring for her soil and having a large per cent. of tenantry, illiteracy and bad rural conditions generally. How can conditions be otherwise? How will "back to the farm" be accomplished until this condition is corrected?

Some will say there was an overproduction, but the figures of the Census Bureau show that in 1913 we produced 14,156,483 bales and consumed and exported 15,198,524 bales. Does this show a surplus? No, it shows production less than the demand, but selling for a shameful loss. It certainly shows there is something radically wrong that must be corrected.

The following is a copy of a letter written to President Wilson by Fred W. Davis, Commissioner of Agriculture of Texas, which deals with the actual cost of producing cotton:

"His Excellency, Woodrow Wilson,

"Washington, D. C.:

"Dear Mr. President—There appear to be some very sinister influences at work in this country, threatening direct harm to the farming interests of the South and indirectly to all other interests.

"Fearing that our National Administration, including Congress, may not be fully advised as to a situation of gravest portent to a great and loyal section of our country, I beg indulgence for a few words of explanation.

"The South has not, in 30 years, sold a cotton crop for nearly its cost to produce. On the other hand, she has, year after year, worked her women and children in the fields to grow cotton at a loss, that the rest of the world might prosper; that the balance of trade might remain in our favor, and that our gold supply might remain intact.

"Latterly, the war has taken large numbers of our boys from the farms, whose expert labor must be supplemented by that of people from the cities and towns, who know little about farm work, who demand 8 to 10 hours as a day's work, and wages two or three times as high as has been the rule on the farms, and pay daily or weekly. Whereas, the boys before going to the war worked merely for their board and clothes, waiting till fall for what little they got of the latter. It is reasonable to expect, under these changed conditions, that the South cannot continue to clothe the world at

prices so much below the cost of production as have heretofore ruled.

"Last summer, in addition to the above conditions, the Department of Agriculture of Texas became aware that ship and railroad space to deliver cotton to the mills of the world were going to be inadequate, restricted, in fact, to temporary needs, and that the crop must be fed to the demand throughout the year, instead of forced upon it during a period of three or four months. It was apparent, in other words, that if the crop was thrown upon the market as fast as gathered the price would go so low as to bring bankruptcy to the South, to say nothing of deep humiliation because of her inability to do her share in financing the war. Viewing the matter in this light, there was selected by the commissioner a committee composed of the best-posted farmers he could find, with instructions to secure information as to the average cost of producing the 1917 cotton crop. The committee could not know the exact yield at that time, and hence based its calculations on the United States Government estimate, finding the cost to be over 30 cents per pound. On the strength of the committee's report, the farmers were advised as to shipping conditions, and asked to hold their cotton for 30 cents. Later, when the extent of the crop was known, the committee revised its estimate, placing the per pound to produce at 34 cents, and seed at \$60 per ton. Since then, the Department of Agriculture at Washington has published a bulletin on the cost of producing cotton, which more than bears out the committee's report. A report on it is herewith enclosed.

"Blanks were placed in hands of the farmers last fall, who agreed to keep accurate account of all work and expense of producing the 1918 crop. When the crop is laid by and these reports are in, the committee will estimate the cost of harvesting and ginning, and give to the public the cost of production, and the price the crop ought to bring. This will be pricing the crop on a commercial basis by the States producing it, a dependable system that our grain-growing States might emulate to the interest of both producer and consumer. Certainly our State officials can be entrusted with this important work.

"A great many merchants, farmers and others have bought cotton from farmers compelled to sell, and have held it to prevent a disastrous slump in price, till shipping facilities could take care of it. Some have cotton on hand which cost them 35½ cents, and the bulk of the cotton held would long since have been in the hand of the spinners, could ship and rail facilities have been received. The farmers were advised to sell at 30 cents, but to save a break in the market, only as shipping facilities were adequate to handle.

"It is earnestly desired that you appreciate that this estimate of the cost of growing the 1917 cotton crop is based upon authority of the National Department of Agriculture, and under direction of Texas' duly elected Commissioner of Agriculture.

"Wool, the American supply of which is largely imported, and which is supposed to have sold at a profit prior to the war, has since advanced 500 per cent. Cotton, its competitor, produced at a loss before the war, has since shown only about half the per cent. of advance that is true as to wool. It is contrary to the law of supply and demand, where two products are used for the same purpose, and given an even break in the market, that one should advance faster than the other. Which means that if cotton had not been handicapped in some way the price would have reached 65 cents per pound, though I consider such a price harmful to all interests.

"As evidence of a hampering influence as to raw cotton, the cotton mills have advanced cloth to a wool value basis. As further evidence, I cite you the enormous dividends being earned by the cotton mills. No denial has been noted of recent press statements that the Japanese cotton mills have declared dividends as high as 60 per cent., and many of the American mills even higher. In this connection, our Texas black land farms for 1917, in sections where crops were best, paid on their value only from 4 to 12 per cent., rarely reaching the latter figure.

"If it shall be deemed wise to fix a price on raw cotton, I cannot but believe, in justice and fairness that the work of these duly elected and duly sworn States and National officials, in position to know the cost of producing cotton, will receive due consideration, as against the opinions, guesses and estimates of speculators whose business is to buy cotton at the lowest pos-

sible price, regardless of its cost of production, and who have controlled cotton values for 30 years to the shame and detriment of the South.

"In conclusion, therefore, I wish to say that there is no emergency on cotton which would demand the fixing of a price, but if price fixing is determined to be necessary, I earnestly hope it will not be less than 35 cents, basis upland middling, and that the price of cotton

fabrics may be reduced to a price basis corresponding to that fixed for cotton.

"Feeling that, upon knowledge of the facts, the interests of the South in this matter will be safe in the hands of our Administration, I remain

"Very sincerely yours,

"FRED W. DAVIS,

"Commissioner of Agriculture."

Surging, Enthusiastic Patriotism of New York As a Lesson to Whole Country.

[Special Correspondence Manufacturers Record.]

New York, May 2, 1918.

Seething, surging patriotism, patriotism at a white heat, pervades all New York, facing the last two days for finishing out subscriptions to the third Liberty Loan. New York is some millions behind its quota now, a hundred million or some such inconsequential figure; I don't recall the exact amount, and it doesn't at all matter. New York has \$900,000,000 allotted to it out of \$3,000,000,000 for all of the country, or 30 per cent. of the whole. This large share will be fully assumed, never fear. The great financial interests will fill out any lack there may be at the final hour, meanwhile giving opportunity to individual subscribers to meet the obligations that they owe.

It is in behalf of these individual subscriptions that the tremendous city-wide effort is being made, and I wish every city in the land could see the great big way in which New York is carrying on this work. There will be other loans, and sometimes it may take hard work to put them across, although I believe that a realizing sense of the nation-wide menace and the personal peril of this war have now taken hold of the people as never heretofore, and that subscriptions to the last penny in the land can be counted on if required. But the enthusiasm of New York and its method are matters with which all should be familiar. It is inspiring to see the way the people of the metropolis go about the work. It furnishes an example to other cities everywhere, and it gives wholesome proof of the intense humanness and patriotism of the New Yorkers when really put to the test.

In intensity, in enthusiasm and in the direct personal appeal, this is in patriotism what a Billy Sunday campaign is in a religious way. It pervades the community, and there is no escaping it. There are platforms and exhorters and bands of singers all over town, and there are individual workers in every office building, in the hotels, in the thoroughfares and on every corner. Men from Pershing's ranks, who have been under fire; "Blue devils" from France, every one wearing a cross of war; Anzacs from the Gallipoli campaign parade the streets, speak at the meetings, mingle among the people and fire the fervor of those they meet and of those who even only read about the work that they have had to do in combatting the atrociousness of the Hun. Bankers, brokers, business men of big affairs leave their desks and join in the canvass for the sale of Liberty Bonds. School girls importune the passerby to purchase War Stamps and Liberty Bonds, and even the traffic officers on the busiest streets take time to urge the purchase of bonds. How they ever manage this is a marvel to behold. New York's streets never have seemed so hopelessly choked with traffic as they are now. An unending stream of automobiles roll by. It would seem to be all that one man could possibly do to keep the thread from tangling up. And yet on one of the much-traveled corners, at Vanderbilt Ave. and 43d St., Grand Central Station, I saw the traffic cop not only keep the line open, but take signatures to bond subscriptions from those in vehicles and those on foot, at so lively a rate that his totals footed up, I was told, something over 30 in one noon hour, and he was hard at it all day long.

The youngsters were everywhere taking an active part. In a naval parade of children, a grandson of Dewey, with a sailor's suit of white, took a conspicuous place.

There are boy orators as well as speakers who are practiced in the art. Speaking from an improvised platform at Broad St., I saw a youngster of not more than 12 or 14, and when he had made an impassioned appeal for subscriptions to bonds he stepped aside and

an even younger and more earnest speaker took his place and pictured the danger of invasion by the Hun unless the nation's armies are backed up by an ample Liberty loan.

All patriotic meetings are crowded to the doors, so that late comers find it impossible to squeeze in.

Hundreds and thousands of the wealthiest New York families are represented by soldiers and sailors at the front and by Red Cross nurses well up towards the firing line.

In every way the women are doing a notable part. They are taking the place of the men at the front in running elevators, as conductors on street cars, and as chauffeurs. When the visiting "Blue Devils" were taken to the Polo grounds, they rode in machines every one of which was handled like a major by a young woman in khaki uniform and trench cap.

It quickens one's pulse to feel the patriotic fervor that permeates this place. It is a plunge into patriotism to come to New York now.

ALBERT PHENIX.

Would Employ the Occult Power of Concerted Wishing.

WILLIAM T. WELLS, Melbourne, Fla.

The disappearance of the big collier Cyclops is very disquieting and would seem to show lack of care somewhere.

The Navy Department has done such splendid work since the war began that I hesitate to even suggest any criticism.

On the railways there is a car accountant, who is supposed to know the location of each of the thousands of cars of his line each and every day. Is there such a bureau in the United States Navy? If so, why was the vessel allowed to be lost for nearly a month before the alarm was sent out? Have we spies in the accounting department?

Perhaps you can work this idea into one of your editorials if you have not already done so.

Another idea which is being used by the Huns, that is, the occult power of concerted wishing by a number of people. I enclose a copy of letter sent to the Saturday Evening Post which explains the idea. If each real-American would each morning upon waking up wish as hard as possible for the defeat of the Huns, it would have a powerful effect and offset the wishing of the German people.

Mr. Wells' letter to the Post is as follows:

Editor Saturday Evening Post,
Philadelphia, Pa.

In these times of world-stress we must all do what we can, even if that be little, and if any of us have what we think a good idea we should submit it to someone of experience and wisdom; and hence I write you.

Some years ago a picked college crew went to England to row against the fastest college crew there. In practice over the Henly course the Americans made very fast time, much faster than the English had ever made. When it came to the race there were over 100,000 people along the shores of the course, and all wishing hard for the success of the English, and the English won easily, the Americans making slow time.

There were many excuses given, and foul play charged, but the real reason was the power of the 100,000 persons, all hoping with all their might that the English would win. Now, I want to say that if the 5,000,000 readers of the Post will each morning, as soon as they wake, ardently and heartily wish for the success of our soldiers and our Allies and the utter crushing of the Germans, that in a short time the power exerted will be so great that the allied armies will completely vanquish the Huns.

It will do us all good to try this concerted action.

Very truly yours,

WILLIAM T. WELLS.

"I Am Against the Postal 'Zone' Law"

Ambassador Gerard Denounces It Because It Would Help German Propaganda

THE newspapers and magazines of this country are the chief educational agencies of our nation, and as such of supreme importance in our principles of Government. The widest possible circulation of publications ought to be facilitated as a wise public policy.

The postal "zone" system was abolished by Abraham Lincoln in 1863 and has since been condemned by United States Postal Commissions and postal experts. Such a law was denounced by President Wilson when he was Governor of New Jersey.

This postal "zone" system is dangerous to our national progress and citizenship; because it would sectionalize the country; because it would penalize readers by their accidental remoteness from the city publication; and because it would make difficult the knowledge and achievements of American thought and patriotism.

There is a direct relationship between wide reading, accessibility of information—and effective patriotism. Reading should be encouraged—and the history of our postal development from George Washington to the present proves this. This is what George Washington said:

"But here I cannot forbear to recommend a repeal of the tax on the transportation of public prints. There is no resource so firm for the Government of the United States as the affections of the people, guided by an enlightened policy, and to this primary good nothing can conduce more than a faithful representation of public proceedings, diffused without restraint throughout the United States."—(George Washington's Fifth Annual Message to Congress, December 3, 1793.)

Our postage on magazines is FOUR times the Canada rate. Our Congress has increased magazine postage by 50 to 900 per cent. through a "zone" system—and during the greatest crisis this nation has ever faced.

Canada has raised postal rates during the war on every class except newspapers and magazines. Canada recognized the vital need of widespread reading to help win the war.

Our Congress has passed a law to throttle reading during the war and after it by this postal "zone" system and a 50 to 900 per cent. postage increase! Demand its repeal—at once.



Photo Copyright by Underwood & Underwood.

AMBASSADOR JAMES W. GERARD

Ambassador Gerard Said:

"Now we have to meet this German Propaganda. The war is not going to last forever—and you have seen what German Propaganda has done in Russia. These are grave dangers, and they only go to show what can happen in a country like Russia.

"Fortunately, they cannot propaganda this country as they can Russia, because we have great publications that go all over the country and have unified the whole country and the whole continent. That is why I am against the postal zone law passed in the last Congress putting an extra tax on papers sent from the cities where published.

"They forget that, whether these publications go from Philadelphia, from San Francisco, or from Chicago, it is the exchange of these papers from and to all parts of the country that makes one, universal, united America.

"They unify the sentiment, and that is worth far more in this war than the small amount of extra postage which the Government will obtain."

WIDESPREAD opportunity of reading means efficient patriotism—it is proved by facts. Could any fact be of greater significance than the following:

When the recruiting of American soldiers for this great and righteous war was begun one year ago, each State was allotted a certain quota of enlistments. One year after eight States failed to complete their quotas—and six of these are from States showing the highest percentage of illiteracy in our entire country.

Magazine circulations are but small in those States—every publisher's circulation list proves this. How could the ringing appeals to patriotism and sacrifice published widespread by the magazines reach the minds of those who do not read!

Read Ambassador Gerard's statement that magazines unify sentiment and make one, universal, united America.

And this postal "zone" law would kill magazines and restrict their circulation in the greatest crisis that has ever confronted this nation since the American Revolution.

Repeal this law.

Restrict periodical reading and you aid German propaganda—read Ambassador Gerard's condemnation of this same postal "zone" war.

Oppose this law. Write to your Senators and Congressmen against this disastrous postal "zone" law—and demand its repeal.

Get your friends and family to write. Circulate a petition demanding its repeal.

Read Ambassador Gerard's word once again. Enroll to fight this disastrous postal "zone" law, and if you will help, you have helped—by discussion, by letters to Congress, by petition—send your name at once, on this coupon, to CHARLES JOHNSON POST, 200 Fifth Avenue, New York City.

Speeding Up Production of Guns and Ammunition.

Washington, D. C., May 4.—[Special.]—Answering the urgent calls from France for a still greater participation in the war by the American forces, the artillery program of the War Department is being materially enlarged and strengthened. There must be rifles for the men who go across to the trenches and there must be guns to hammer down the oncoming German ranks.

To provide these the gun manufacturers will be required to put fresh exertion into their work, and with the plants working to capacity to supply the war needs, the Government is turning to companies which heretofore have refrained from taking contracts for guns and ammunition. There is every indication that before many days important arrangements may be made with the United States Steel Corporation in this enlargement of the artillery program.

The construction of a Government arsenal on a scale greater than the Watertown or Watervliet establishments is contemplated. The Ordnance Department is expected to decide upon the details of the project within a short time, and the arsenal will be rushed to completion as speedily as possible.

In this new plant, which will be built by the Government, it is planned that every item of modern artillery and artillery equipment will be produced. Guns of the largest caliber can be forged, machined and assembled, and the projectiles likewise will be manufactured in the same establishment.

The development of the German 75-mile gun has aroused a new interest in long-range artillery among the allied nations. Heretofore accepted as an impossible feat, the achievement of the Kaiser's gunmakers, while declared to be without great military value owing to the inaccuracy of the fire, nevertheless holds the possibility of some improvement which will increase the efficiency materially.

Samuel M. Vauclain, vice-president and general manager of the Baldwin Locomotive Works, and now chairman of the subcommittee on army and navy artillery of the Council of National Defense, recently stated that an American super-cannon has just been completed, constituting the greatest engine of destruction that has yet been produced in artillery by the war. While declining to give details regarding the great cannon, Mr. Vauclain said that the side gutters of concrete weigh 75 tons apiece. He declares that the new weapon was planned, designed, constructed and completed within 10 weeks' time, and thus it doubtless incorporates any features which the Allies may have been able to learn in regard to the German gun. Reports have indicated that the latter is a 15-inch naval gun, fitted with an inner tube which reduces the caliber without diminishing the size of the powder chamber.

With the facilities afforded by the mammoth new Government arsenal it is confidently believed that American ingenuity will develop long-range guns to the highest point of effectiveness.

Col. Samuel McRoberts of the Procurement Division of the Ordnance Department, who is perfecting the plans for the arsenal, has selected a site in the Pittsburgh district, so that the guns may be manufactured as close to the supplies of raw material as possible. This will obviate many of the difficulties which might be caused by the requirements of labor, raw materials and transportation. The manufacturing experience of the field also can be drawn upon. It is probable that an arrangement can be made whereby open-hearth furnaces in connection with the arsenal plant, or in the immediate neighborhood, will supply the necessary ingots for the Government factory. The arsenal equipment, however, will include the heaviest presses and all the apparatus needed for forging the ingots.

While enlarging its plans for the gun output, the Ordnance Department has been making steady progress in the production of rifles. Since the first of the year an average of approximately 7500 rifles have been produced each day.

In the week ending March 2 a record of 62,954 rifles was established, or about 11,500 a day. Since that time there has been some difficulty experienced in obtaining full supplies of raw material and labor, and the production has decreased, but it is believed that when material is received as promptly as it should be, the high record can be reached again if desired. The War Department, however, is satisfied with the present output as fulfilling the needs of the program, the 50,000 rifles a week now being turned out being sufficient to equip three army divisions each week.

The showing made in rifle production since the begin-

ning of the war is encouraging, despite the time lost in developing new types and making modifications. Up to February 15 the figures of the Ordnance Department show 163,570 Model 1903 Springfields made in the Rock Island and Springfield arsenals, and 539,766 Model 1917 modified Enfields produced by the Eddystone, Winchester and Remington companies. In addition to this, 45,440 Russian rifles were turned out for use in the training camps. This makes a total of 748,776 rifles produced by the Government from April 6, 1917, to February 15, 1918, with all the spare parts necessary.

On entering the war the Regular Army, the National Guard and the reserve stocks furnished 600,000 rifles, and these, added to the production gained by the Ordnance Department, have provided a rifle supply that on February 15 was approximately 1,398,776.

The Contrast Between Canadian and American Postal Systems—The Views of President Wilson When Governor of New Jersey.



The above diagram tells a story which will cause the people of all sections to think seriously as to what the increased postal rate and proposed zone system means. This diagram, prepared by the magazine Comfort, shows that from the extreme eastern limit to the far western end of Canada the postal rate upon newspapers and magazines is half a cent a pound, while under the proposed zone rate for this country the charge on publications on an ascending scale, depending upon the distance, would result in a rate, say, from Maine to California, the maximum of which would be 10 cents per pound, or twenty times what Canada finds it wise to put upon the handling of its second-class mail.

This proposed rate, if not repealed before July 1, when it is to take effect, would mean that the postage rate in this country would be from six to forty times the Canadian rate, according to distance carried and the character of the publication, and that people living at distant points from centers of publication work in the country would be burdened with exorbitant prices for the magazines and papers which they must have if they are to keep informed as to world movements, but which of necessity would overtax so many readers that they would be compelled to lessen their reading and thus lessen their interest in the great world questions of the hour, especially at this time, the most momentous in all history.

The scheme has well been called one to sectionalize the country instead of nationalizing it.

When President Wilson was Governor of New Jersey he made a very strong statement against the plan which at that time had been suggested, but which few people ever thought would command any support of importance in Congress. In discussing this question, President Wilson, or then Governor Wilson, said:

"It must be that those who are proposing this change of rates do not comprehend the effect it would have. A tax upon the business of the more widely circulated magazines and periodicals would be a tax upon their means of living and performing their functions. * * *

"This proposed new postal rate would be a direct tax, and a very serious one, upon the formation and expression of opinion—its more deliberate forma-

tion and expression just at a time when opinion is concerning itself actively and effectively with the deepest problems of our politics and our social life.

"To make such a change now, whatever its intentions in the minds of those who propose it, would be to attack and embarrass the free processes of opinion.

"Surely sober second thought will prevent any such mischievous blunder."

Had these statements by President Wilson been made at the present time they could not more thoroughly fit the situation than they do today.

\$125,000 Expenditure on Furnace and Foundry Improvements at Rusk, Tex.

The betterments in progress on the iron furnace and pipe foundry plant at Rusk, Tex., by the Texas Steel Co. of Beaumont are estimated to cost \$125,000. Outlining this work, the corporation advises the MANUFACTURERS RECORD:

"For the repairs and improvements to the furnace plant the estimate of cost is \$75,000. With the exception of one large Dean pump for water circulating purposes, no new machinery is being installed. The improvements in connection with the blast furnace consist of two new stock trestles for economical handling of raw materials. The trestles are being equipped with bins for ore, coke and limestone. The Hunt system of mechanically filling the furnace is being installed. With this system in operation the materials may be handled and the furnace filled by three men. The date of blowing in the furnace depends upon receipt of structural steel with which to complete the installation of the Hunt filling equipment.

"The repairs and improvements to the pipe foundry will total \$25,000. They will include replacing motors and overhauling cranes. In all other respects the pipe plant is in good condition and the equipment is intact. The molten metal will be handled direct from the blast furnace to the pipe foundry in 15-ton ladles.

A Provision Which May Be Near Treason.

The New York Board of Trade and Transportation has issued a printed appeal to the New York Senators and Representatives in Congress to oppose the passage of a provision in the naval appropriation bill prohibiting the use of any part of the appropriations thereunder to pay anyone having charge of the work of any employee of the Government "while making or causing to be made with a stop-watch or other time-measuring device a time study of any job of any such employee between the starting and completion thereof, or of the movements of any such employee while engaged upon such work," etc. The provision also prohibits paying bonuses to employees in addition to regular wages, except for suggestions resulting in improvements or economy in the operation of a Government plant. The appeal says that walking delegates of labor organizations are supporting this provision, which in war time approaches treason.

To Build Electrode Plant.

In order to furnish materials for its \$2,000,000 nitride factory recently detailed, the Aluminum Company of America (main offices at Pittsburgh) will build a \$1,000,000 electrode producing plant at Maryville, Tenn. Plans and specifications have been adopted for the buildings, which will be of fireproof construction, utilizing steel, stone, brick and concrete. This plant will be driven by electric power transmitted from the dams which the company is now building for its hydroelectric developments at Alcoa and Cheoah, on the Little Tennessee River.

All contracts have been awarded for construction and machinery, with a view to having both factories in operation by November to furnish supplies for the Government during the war. Several thousand men will be required during the construction period and probably 2500 will be employed to operate the plants after they are completed.

Blue Ribbon Oil Refinery.

Five thousand barrels of oil will be the daily capacity of a refinery which the Blue Ribbon Oil & Refining Co. will build at Walters, Okla. This company has organized with \$300,000 capital, and its plans include laying 14 miles of four-inch pipe line. It wants the complete equipment of machinery for its refinery, Wayne Colver of Oklahoma City being the engineer in charge.

NEARLY \$3,000,000 FOR HOUSING CONTRACTS.

\$800,000 First Award of Shipping Board for Workmen Employed at Sparrows Point.

A contract has been awarded by the United States Shipping Board, through J. Rogers Flannery, its director of housing, to the Consolidated Engineering Co., Calvert Building, Baltimore, Md., to build 302 convertible houses, four kitchen mess halls, a power-house and a bakery at St. Helena, Md., near Baltimore. Plans for these buildings were prepared by Edward L. Palmer, Jr., architect, 513 N. Charles street, Baltimore.

Work is to begin immediately upon this improvement, which is the first contract let by the Shipping Board for the purpose of housing the largely increased numbers of workmen employed and to be employed at the shipyards of the Bethlehem Steel Co. at Sparrows Point, Md., three miles from St. Helena, and it is stated that the entire cost of this work, including grading, street improvement, etc., will be approximately \$800,000.

These houses are to be used at first only for sleeping quarters for workmen of various classes, all getting their meals at the mess halls. Later they may be converted for the use of workmen and their families as the conditions there become more settled and permanent.

This is an entirely different proposition from that of the Dundalk Company, which proposes to build 510 dwellings on the other side of the Sparrows Point Railroad from St. Helena, also for housing employees of the Bethlehem Steel Co., and which plan is likewise being developed in consultation with the Shipping Board, as previously reported, Mr. Palmer being the architect for this development as well as for that which has just been placed under contract. Dundalk and St. Helena are practically one and the same place, the railroad only separating them, while St. Helena is the post-office. Edward H. Bouton of Baltimore, president of the Dundalk Company, has had large experience in dwelling-house development, being president also of the Roland Park Company, which developed the fashionable Baltimore suburbs of Roland Park and Guilford.

The Dundalk dwellings are to be of a more expensive type of construction, suitable to the use of heads of departments, engineers and other employees who desire more commodious quarters than those which workmen prefer. Altogether there will be 531 buildings erected on the Dundalk tract, including about 10 boarding-houses, and the whole improvement there will cost about \$2,000,000, according to estimates, this total covering street work, etc., and making the aggregate expenditure at both St. Helena and Dundalk somewhere between \$2,750,000 and \$3,000,000. The following concerns have been requested to bid on the Dundalk plans: Jarrett-Chambers Company, 30 East 42d street, New York; John Lowry, Jr., 8 West 40th St., New York; Mark C. Tredennick, 331 Madison avenue, New York, and the H. D. Watts Company, 502 Garrett Building, Baltimore.

Labor Shortage in Louisiana.

New Orleans, La., May 4—[Special.]—Some indication of labor conditions in Louisiana may be gained from the fact that the bags of rice are to be made 25 pounds lighter. This increases the handling charges, but the mills have found it necessary because strong labor is not now available.

Rice planters report great trouble in securing hands to plant the crop—one man for every 80 acres—despite the fact that wages have risen to \$2 a day. In August and September the pinch will come, for when the harvest is on, the man power must be multiplied by four.

Everything points to the biggest rice crop in the history of the State, but planters may not be able to handle it after it is made. Rice must be harvested immediately or it will spoil.

On the sugar plantations the outlook is equally uncertain. Even now in the growing season there must be one man to every ten acres, but when grinding begins six times the present labor force will be needed. Planters are short-handed today. Wages that until last year were 80 cents a day (including house and garden patch) were raised to \$1 in the fall and \$1.25 in January, but still the begira to the "big money"—big sounding, that is—of the city continues. What labor is left is of an inferior kind.

"We are learning," said one planter, "to get along short-handed—found out a lot of short cuts and all

that, and our present troubles may not be an unmixed evil. But we are not so certain about the future. Rice, you know, is the labor barometer of the sugar planter. If there is plenty of labor in the rice fields, we know we will have an easy time, because our crop comes off right after the rice is harvested. But the man power of the rice region is below normal already."

And the same is true in cotton and cattle and general farming regions.

The draft is indirectly responsible, of course, for the draft, while it does not take men engaged solely in farming, does take those in other lines, and the manufacturer and contractor recruit their forces from the farms.

So it is that the cities of the State are constantly draining the labor from the country with their high wages; and even so the North and East, with wages still higher, are draining it from our cities. This explains the labor shortage here.

Thus the United States Employment Agency has sent 5000 men—2000 skilled laborers—from New Orleans since January. Nine hundred went to Norfolk only a week or so ago; trainloads of men have gone to Birmingham and to West Point and to Muscle Shoals and to Mobile and to Atlanta. Others have gone to the Pacific coast and to Canada. The agency is now recruiting 3000 carpenters, tanners, painters and unskilled laborers to send to Nashville for work on what will be the largest powder mill in the world.

Many of these recruits are undoubtedly quasi-tramps or floaters from the North who like to spend the winter in the South, and who never stay long in any community. But many are native-born, who forsake the \$2 a day or its equivalent and cheap living for the \$3 of the North and the ills they know not of.

Private agencies, too, are sending men out, and the labor strain will be increased still further when the 10,000 shipbuilders, metal and electrical workers, those engaged in the building trades, machinists, clerks and unskilled labor, enrolled in the shipbuilding division of the Public Service Reserve, are distributed through the yards of this division, extending from Jacksonville, Fla., to San Antonio, Tex. This will be when provision can be made for workmen's accommodations that will enable the plants to run 24 hours a day instead of eight.

The Public Service Reserve will shortly launch a drive for farm labor in Louisiana. Obviously this labor cannot be recruited in the country, where all available man power is already enlisted; and whether men who have become used to the white lights of the city will go to the country, even at increased wages, is problematical.

New Orleans has recently launched a "work, fight or go to jail" campaign. National enforcement of this plan would undoubtedly relieve the labor strain somewhat, but this is still in the future.

What is of more immediate importance to Louisiana is the statement that the United States Employment Agency, after it fills the Nashville order, will not send labor out of the State on a large scale.

The principal reason for this is that a reserve must be kept for the great industrial canal of New Orleans, for building the ships on its banks, and for running the industries with which the land will soon be humming.

With women taking men's places in the lighter forms of work, this elimination of competition by Northern and Eastern centers, while it will not solve the problems now confronting the State, is expected to at least prevent their further increase.

Launches 5500-Ton Steel Ship in 27 Days.

Breaking all previous records in shipbuilding held by any country, the New York Shipbuilding Co. on May 5 launched the 5500-ton steel collier Tuckahoe at its Camden (N. J.) yards, 41 days ahead of contract. From the laying of the keel for the Shipping Board's fleet on April 8 until the Tuckahoe was launched, the actual time was 27 days 2 hours and 43 minutes. It is said the vessel is so nearly finished that it will only take about 10 more days to complete it ready for service.

This is a ship-launching record that has cut more than half the time held in previous records, though many yards are now working to excel this achievement.

A remarkable fact in the construction of this 5500-ton steel vessel was that it was accomplished with about 300 men working a single shift, with the exception of a double shift of about 60 men were used for about two weeks.

Great credit is given to Tom Mason, hull superin-

tendent of the New York Shipbuilding Co., for his planning and organization of the work which made the achievement possible.

The best previous record in American shipbuilding was held by the Skinner-Eddy yard at Seattle, with 55 days for launching and completion in 100 days.

The launching was made the occasion for a great celebration. Among those who attended and made addresses were Edward N. Hurley, chairman of the Shipping Board; Charles M. Schwab and Vice-President Charles A. Piez of the Emergency Fleet Corporation. Mr. Hurley in his speech read a letter of congratulation to the workmen on their great record from President Wilson.

Aransas Pass as Possible Site for Concrete Ship Plant.

Corpus Christi, Tex., May 4—[Special.]—Careful consideration of Port Aransas as one of the five sites to be selected for the location of shipyards to construct concrete ships has been promised by Charles Piez, general manager of the Emergency Fleet Corporation.

I. W. Hubbard and E. E. Parker, engineers for the corporation and the United States Shipping Board, are now making an investigation of the sites that are being offered, and are expected to visit Port Aransas within the next few days.

According to Mayor Ed Cotter of Port Aransas, the location that will be offered for such purposes is admirably located and will provide not less than 28 feet of water for the launching of the vessels. The Government proposes to spend \$10,000,000 at each of the shipyards.

San Antonio is assisting Port Aransas, and has appointed a committee from the Manufacturers Association to confer with the engineers.

\$500,000 Ship Assembling Plant.

A ship-assembling plant will be established at Beaumont, Tex., by the Emergency Fleet Corporation, William M. Hind, installation superintendent, with headquarters at Beaumont. This plant will cost \$500,000, and it will equip the 52 wooden ships now under construction in the Fifth District. About \$2,000,000 will be the labor cost of equipping these vessels, each of which will be a 2500-ton ship with an hourly speed of 10 knots. The Government will furnish the 1400-horsepower triple-expansion engines, the wireless apparatus and other equipment to be installed on the 52 vessels.

The installation plants for the Beaumont Shipbuilding & Dry Dock Co. and the Lone Star Shipbuilding Co., both of Beaumont, are now being constructed in accordance with details which have heretofore been stated.

200 Additional Wooden Ships to Be Built by Government.

Chairman Hurley of the Shipping Board has announced that the shipbuilding program will be expanded to provide for the construction of 200 additional wooden vessels of 4500 or 4700 deadweight tons. This will increase to 580 the number of wooden ships completed, building or planned.

The vessels, which will be either of the Daugherty or Ballin type (the latter for the Pacific coast), will be constructed in yards already established.

Big Steel Shipyard Contemplated.

An investment of \$1,500,000 at Brunswick, Ga., for a shipyard and employes' city is contemplated by the Strachan Shipbuilding Co. of Savannah, Ga., and Charleston, S. C. This plant is proposed for the construction of steel steamships up to 10,000 tons, and a marine railway will be provided for future extension up to vessels of 20,000 tons capacity. A site is under consideration adjoining the water-front properties of the Atlanta, Birmingham & Atlantic Railway.

\$1,250,000 for Latest Foundation Shipyard.

An investment of \$1,250,000 will be required to build and equip the shipyard recently announced as to be established at New Orleans by the Foundation Company of New York. A site on the industrial canal has been chosen and details are about determined for this big plant for the construction of steel steamships. At first the product will be 4200-ton vessels, and the plant will employ 2000 men.

The initial contract for five 4200-ton steel steamships

of a new unsinkable type is from the French Government. C. A. D. Bailey of New York, vice-president of the Foundation Company, is in New Orleans attending to the arrangements for this important addition to Foundation shipbuilding facilities.

Federal Marine Railway for Savannah.

The Federal Marine Railways Co., Savannah, Ga., has been chartered with \$200,000 capital by R. S. Salas, H. Hodgson and T. M. Cunningham, Jr.

This company will operate a marine railway which the Emergency Fleet Corporation will build on the Savannah River, the railway to be 1000 feet long and equipped for handling vessels up to 3500 tons. Contract for the construction has been awarded to the National Shipbuilding & Dry Dock Co., the site of the marine railway being at this company's shipyard. Preliminary improvements are in progress preparatory to beginning construction, and Reid Whitford of Washington, supervising engineer for the Emergency Fleet Corporation, expects that the new plant will be completed within four months.

To Manufacture Ship Spars.

From 150 to 200 men will be employed in a spar plant which the Columbia Spar Co. of Portland, Ore., will establish at Orange, Tex. A 130x36-foot building will be constructed for this factory on a site adjacent to the Southern Dry Dock & Shipbuilding Co.'s plant. Steamship spars will be supplied to the shipyards at Orange, Beaumont, Houston and other Texas cities.

Shipbuilding Notes.

The Wilmington (N. C.) Wood Ship Construction Co. has been organized to succeed Cushman & McKown, builders of wooden vessels. Enlargements and improvements are planned for the shipyard.

The Adamant Brick Co., Pinellas Park, Fla., organized by H. G. Gilbert and associates, plans to construct several concrete ships to demonstrate cementone, a material to be manufactured in the concrete brick works which this new organization will establish.

A 100-acre waterfront site has been purchased for the \$500,000 assembling plant recently announced as to be established at Beaumont by the Emergency Fleet Corporation. It will be equipped for the installation of the mechanical equipment in the 52 wooden ships being constructed for the Government at Beaumont, Houston, Orange and Rockport, Tex., and Morgan City, La. These are 2500-ton vessels.

War Gardens for Railroad Men.

The Pennsylvania Railroad Co., which owns a total of about 2800 acres of land adjacent to its lines east of Pittsburgh and Erie, has through R. L. O'Donnel, assistant general manager, sent out a general notice to all employees urging them to use this land for war gardens during the spring and summer, tracts of one acre being leased to them for \$1 and smaller lots for 50 cents or less. Last year the employees of this railroad planted 1200 gardens and raised therein crops of an estimated value of \$250,000. Earnest efforts will be made to exceed this record.

It is pointed out that the long afternoons now obtained under the daylight saving plan enable the men to put in their time out of working hours to the greatest advantage to themselves and their families, as well as to the country. A supply of small books, or garden primers, has been obtained from the National War Garden Commission at Washington, and they will be distributed, one copy to each employee. Information on canning, drying and storing fruits and vegetables will also be supplied.

Big Coal Company Chartered.

New coal developments are planned by the Mountain State Coal & Coke Co., Clarksburg, W. Va., chartered with \$1,000,000 capital. H. W. Kopp, E. D. Tucker, Joseph L. Walton, J. H. McKelvy and B. E. Maxwell are the incorporators.

According to a compilation of world's holidays by the Guaranty Trust Co., New York, there are but 84 days in the year on which banks are open everywhere in the world; but the only universal holiday is New Year's Day. Brazil, with 84, has the largest number of holidays, and the United States is next, with 54.

The Iron, Steel and Metal Trades

Government's Demand for Steel.

New York, May 6—[Special.]—According to the latest statistics, production and shipments of steel are now at about the same rate as they have been in the past two or three months. This is at the rate of 2,500,000 gross tons a month, or 85 per cent. of productive capacity. The month of April showed only a very small percentage in the increase of production over March. On account of January and February accumulations of steel, however, having been shipped largely in March, there were quite a number of frequent cases of mills producing more steel in April than in the previous month, but shipping less.

It is estimated in the steel trade that the requirements of the United States and her Allies will take up practically all of the production of crude and finished steel during the balance of the year. This will amount to approximately 22,000,000 tons in the next eight months. This includes 6,000,000 tons of steel shell bars and gun forgings; 4,000,000 tons of bars, plates and shapes for building ships, and other forms of steel used in the manufacture of rails, cars and locomotives; 2,000,000 tons of plates and shapes—about half-inch—for structural work other than ships and railroad equipment; 1,600,000 tons of wire products; 2,000,000 tons of sheets and tin plate, and 2,000,000 tons of pipe and miscellaneous steel.

It is anticipated that the work of the mills will be concentrated largely upon steel for guns, shells, ships, cars and locomotives. The plain material furnished for these activities will cost about \$200,000,000. The total expenditure required for the manufacture of all Government war munitions, including the above, will not be far from \$3,000,000,000.

As regarding transactions in commercial steel during the past week the market was very quiet on account of producers having been notified to push the war program and be prepared for further requisitions.

Merchant blast furnaces last week redoubled their efforts under pressure from Washington to divert all possible tonnage of pig iron to war requirements.

With the furnaces fairly well sold for many months ahead and with deliveries behind on most contracts, there is very little regular commercial tonnage available. Nearly all of the sales last week were made against Government contracts.

Many consumers of foundry iron are complaining of small receipts of pig iron on contracts. Not a few foundries in New York and Connecticut were obliged to close within the week, while others are threatened with suspension momentarily for lack of iron. Apparently production is more satisfactory in all producing districts, even in Eastern Pennsylvania, but the iron is not being moved to any extent, due to lack of transportation facilities. Cars can not be obtained and stocks are accumulating on furnace banks. Some agents reported last week that distribution is very irregular. The Government may be asked to allocate shipments, as well as orders, to insure consumers who are working on war orders, an ample supply of metal.

Producers reported last week heavy inquiry for both large and small tonnages, to be shipped over the second half of the year, but almost no business was taken. The only sales noted were small lots of off grades which came unexpectedly upon the market. Foundry iron consumers anticipate even a greater shortage of pig metal than at present, if preference is to be given to steel-making iron consumers.

Irregularity in the Metal Markets.

New York, May 6—[Special.]—The metal markets last week were very irregular, showing softening in spots and a tendency to hardness in others. There was no change in copper, although speculation continued rife as to a possible advance in the price to 25 cents a pound. After firmness for weeks the lead market developed a sudden softness with prices dropping to lower levels. Spelter showed an unlooked-for activity, with prices advancing, while tin was as scarce as ever.

There seemed to be an impression in many quarters that the conference shortly to be held in Washington between the producers and the War Industries Board

would result in the fixed price for copper being made at 25 cents a pound. The general opinion in the trade, however, is that the price will remain unchanged. There is every evidence that enough of the red metal can be produced at a fair profit to meet all probable requirements. The market continued quiet. All demands for war and present reduced home requirements seem to be met with difficulty. Pending the settlement of the price question the market for copper is stagnant, with some demand for nearby shipment.

There was a softening in the outside market for lead last week with the St. Louis market being quotable at 6.50 to 6.55 cents as against the American Smelting & Refining Company's price for desilverized lead in St. Louis at 6.92½ cents. A reduction in the price of the latter appears inevitable, and is momentarily expected by the trade. The increase in the Mexican production, and the lack of buying for domestic account, are the reasons advanced for the drop in price.

It was reported that the Government made a large purchase last week of grade A spelter at around 10 cents, St. Louis basis. Several producers are giving special attention to the manufacture of this grade for the army, and are calculating to market the greater part of their production in this form. The prime Western market was firmer at 6.65 cents bid, and 6.70 cents asked, for June. A good amount of business was done at these figures. Brass special was quiet at 6.87½ cents to 7 cents, St. Louis. The firmness of the market, after many months of quiet, is said to be due to the fact that producers of high grade zinc ore have been notified by the War Industries Board to regulate production.

There was not much change in tin. A few lots of Chinese No. 1, that were offered on the Pacific Coast and en route overland, were all quickly sold at 97 cents a pound. There are a few unsold lots on a steamer due at the Pacific Coast next week, which are held at 96 to 97 cents, delivered at Chicago. Chinese No. 3 tin, 96 per cent. pure, was in demand, with very few offers obtainable. The nominal market is 91 to 92 cents for April shipment from China, and 90 to 91 cents for May shipment. There is a rumor in the trade that new purchases of Banca tin to be shipped by steamers of other nationalities may reach the United States within the course of a few weeks. It is not a question of steamers, however, but of permits.

Increasing Iron Production in Birmingham District.

Birmingham, Ala., May 6—[Special.]—Just what small-lot business the manufacturers care to take on, satisfying regular customers, delivery during the last half of the year, is the pig-iron market condition in the South. Inquiry at three or four places elicits the same information, that the market is about the same as it has been for the past two weeks and longer, and inquiries are coming in constantly. But little comment is to be heard here on the report that the Government is to commandeer pig-iron and steel and will eliminate non-essential manufacturers in order to assist those industries which are working on war necessities and must have iron to keep them going. Shipments of iron from this district are much better, and steady reduction of accumulated stocks is again reported. The make is also taking on strength, and the blowing in of the Trussville furnace, which has been out of commission for seven years, will within a few days add more than 200 tons daily to the iron make in this State. The work on the second Gadsden furnace of the Alabama Company is being rushed, and the probabilities are that it will be in operation before the month is out. There is need for every ton of iron that can be manufactured, and inquiries being received even go so far as to mention off grades.

The Trussville furnace is owned and operated by the Birmingham Trussville Iron Co., of which E. A. Shedd of Chicago is president; C. C. Shedd, secretary-treasurer; C. B. Shedd, E. A. Shedd, F. R. Norman, A. S. Hanford, D. E. Mitchell and John H. Adams, directors; John H. Adams, Birmingham, general manager; Tom F. Dowling, superintendent. The furnace property has been overhauled, stockhouse enlarged and reconstructed, additional stock-yard track with locomotive crane put

in, new boilers, pumps, etc. Three hundred coke ovens at the furnace have been in operation for some time, and iron ore, coal and coke for two months' supply at least have been put into the bins at the furnace. Furnace gets its supply of coal from the new mines of the Company at Lebuco, in the western part of Jefferson county, Alabama, there being five operations there. A new 1200-ton Montgomery coal washer handles the coal. The ore is gotten from the Nixon and Crudip mines in this State, and brown ore from Georgia and some from Goethite, Ala. It is stated that the Government will get practically all of the iron to be manufactured here.

Cast-iron-pipe manufacturers say that the market is still lagging and the orders in sight not numerous. Pipe for the Government is being rushed out. Prospects are the pipemakers will not melt a very large tonnage of iron this year. Machine shops and foundries are very busy with orders in hand that promise to keep plants going beyond this year. Plenty of railroad service is noted for the shipment of all products from the district turned out by the machine shops and foundries.

All development work by the Tennessee Coal, Iron & Railroad Co. in the Birmingham district shows steady progress every week. Prospects are that all contracts will be finished on time.

J. W. McQueen, president of the Sloss-Sheffield Steel & Iron Co., is in New York meeting directors of the company. Reports are current that he is suggesting construction of a by-product coke-oven plant by his company.

Southern scrap iron and steel dealers are rather uneasy as to the market and admit that they are somewhat up in the air. While dealers in the East and in the West, as well as in the North, are favored some by the decision of the War Industries Board allowing a commission, there is no such action in the Southern territory. The market here is soft, no demand for the product and stocks going down. Material is scarce. Mills in the Southern territory are not only buying lightly, but are not willing to give the Government maximum prices. Cast-iron-pipe makers are likely to curtail production as the Government is not looking with full favor on them as essential manufacturers. The car service is sufficiently right now, and contracts which have been in hand for some time are being worked on diligently. A car shortage is not looked for until after July 1, when open-top cars will be needed for coal movements in preparation for next winter.

Pig-iron and scrap iron and steel prices in the South show very little change this week, as follows:

PIG-IRON.

No. 2 foundry, \$33.50 f. o. b. furnaces.
Basic iron, \$32; revision by Government to be announced again by July 1, 1918; differentials on pig-iron the same as before Government regulations began.

OLD MATERIALS.

Old steel axles.....	\$30.00 to \$32.00
Old steel rails.....	24.00 to 26.00
Heavy melting steel.....	23.00 to 25.00
No. 1 R. R. wrought.....	25.00 to 27.00
No. 1 cast.....	23.00 to 24.00
Stove plate.....	20.00 to 22.00
Old car wheels.....	25.00 to 28.00
Tramcar wheels.....	21.50 to 24.00
Machine shop turnings.....	17.00 to 18.00
Cast-iron borings.....	12.00 to 13.00

RAILROADS

MILLIONS FOR NEW EQUIPMENT.

1025 Locomotives and 70,000 More Cars Ordered by the Railroad Administration.

The Railroad Administration awarded contracts during the past week for the remainder of the cars and locomotives required for the successful operation of the great trunk line railroads of the country. These orders cover 1025 locomotives and 70,000 cars, which latter added to the 30,000 cars ordered the week before makes the total of 100,000 for which plans were prepared. The cost of the locomotives will be about \$60,000,000, and of the cars just ordered between \$175,000,000 and \$210,000,000, and these added to the \$85,000,000 or \$90,000,000 which the 30,000 cars will cost makes the grand aggregate of more than \$300,000,000 which it has been said that these equipment orders would represent.

Delivery of most of the locomotives is to be made before cold weather comes next fall so that the railroads will have sufficient reserve engines when winter conditions cause frequent breakdowns and delays. Six standard types of locomotives are represented in the

contracts, and they are to be built mostly in two weights for a type, light and heavy, so that the requirements of varying service will be fully met. Some of them will weigh 540,000 pounds. The lightest engines, it is said, will cost about \$35,000 each and the heaviest about \$90,000. The Baldwin Locomotive Works will build 470 engines and the American Locomotive Co. 555 engines. Orders, it is stated, were placed on a net profit basis of 5 to 6 per cent.

It is reported that 200 more locomotives may be ordered within two months. Contracts for rails and other railroad material are also to be awarded.

The 70,000 steel under-frame cars just ordered include: 15,000 40-ton double-sheathed box cars, 16,000 50-ton single-sheathed box cars, 15,000 50-ton composite gondola coal cars, 5,000 70-ton low-side gondola cars, 19,000 55-ton hopper coal cars.

The 70,000 cars were apportioned among the following builders: Bettendorf Co., Bettendorf, Iowa, 3000; Cambria Steel Co., Johnstown, Pa., 3000; Haskell & Barker Works, Michigan City, Ind., 8000; Keith Car Manufacturing Co., Sagamore, Mass., 1000; Laconia Car Co., Laconia, N. H., 1000; Lenoir Car Works, Lenoir, Tenn., 2000; Liberty Car & Equipment Co., Chicago, Ill., 1000; Mager Car Corporation, Passaic, N. J., 1000; Mount Vernon Car Manufacturing Co., Mount Vernon, Ill., 4000; Pacific Car & Foundry Co., Seattle, Wash., 2000; Pressed Steel Car Co., Pittsburgh, Pa., 14,000; Pullman Co., Chicago, Ill., 8000; Ralston Steel Car Co., Columbus, O., 4000; St. Louis Car Co., St. Louis, Mo., 1000; Standard Steel Car Co., Pittsburgh, Pa., 15,000.

An order is pending to the Barney & Smith Car Co., Dayton, O., for 2000 cars.

The car orders were also placed on a net profit basis of approximately 5 per cent, and the average cost per car is about \$3000.

Contracts for the locomotives will be distributed by the American Locomotive Co. to its various plants at Schenectady and Dunkirk, N. Y.; Paterson, N. J.; Richmond, Va.; Manchester, N. H.; Pittsburgh, Pa., and Providence, R. I. The Baldwin Company has two large plants, one at Philadelphia and the other at Eddystone, Pa.

The freight engines ordered include mostly the Santa Fe and the Mikado types, each type having two sizes, viz., light and heavy. Then there are a few big Mallet engines and a comparatively moderate number of switchers.

Purchase for the Government at an early date of between 300,000,000 and 400,000,000 feet of lumber for the construction of the 100,000 freight cars is forecasted by Thornton A. Green, representing the Southern Pine Association. Because of the close proximity of the Southern pine mills to the larger number of car plants, it is believed the order will include a large proportion of Southern woods. He has just returned to New Orleans after two months spent in Washington consulting with the authorities who purchased these cars.

CONSOLIDATING RAILROAD ACTIVITIES

Orders Merging Ticket and Freight Offices—Model Agency at Washington.

At Washington will be what is described as the model union ticket office, which will be an example for all union ticket offices throughout the country to follow, the only difference being that of size, according to the requirements of each place. The Washington office is at 13th and F Sts. It has a counter 80 feet long, and there will be 16 ticket sellers on duty every day except Sunday from 8.30 to 6 P. M. Tickets for all lines entering Washington and to all points in the United States will be sold. It is said that this plan will serve the needs of the travelers better and quicker than they ever have been served.

Concentration of certain lines of railroad activity and the abolition of others on account of the unusual conditions prevailing because of the war is being made generally manifest through orders issuing from the headquarters of the Federal Railroad Administration at Washington. In this way announcement has just been made at Baltimore that the ticket offices of the three trunk lines whose tracks enter there, pursuant to orders issued by Director-General McAdoo, will merge their ticket offices after June 1 for the purpose of saving rent, heat and light as to two of them. It is further stated that the one ticket office in the city will then be conducted as are the railroad lines themselves, as if it was one great system. Thus the three ticket

offices will be consolidated in the Central Building of the Baltimore & Ohio Railroad, the offices of the Pennsylvania and the Western Maryland roads being closed and their tickets sold at the new location. Thus, if a traveler cannot obtain, for instance, sleeping-car accommodation on the road he prefers he can be immediately told whether he can get it on a line which may be his second choice. There will not be any discharge of clerks; all will be required. Offices operated in Baltimore by roads whose lines do not directly enter the city are to be closed.

Simultaneously a report from New Orleans says that the ticket offices there of eight trunk lines reaching that city directly will likewise be merged and that a similar consolidation of freight offices will also be done wherever possible. A committee has been appointed to choose a central office for the combined ticket-selling service.

From Dallas, Tex., comes the statement that the Missouri, Kansas & Texas Railway has closed its commercial freight office there as well as those in Galveston, Houston, Waco, Fort Worth, Austin, San Antonio and elsewhere; also that plans are being made to shut the local ticket offices and merge them with the offices of other roads. Dallas is the Texas headquarters of this system.

One of the latest steps in the consolidation of railroad operation was the order from the Director-General requiring that the New York passenger trains of the Baltimore & Ohio Railroad should enter and leave that city over the Pennsylvania Railroad's tunnel route under the Hudson River. This order is now in effect.

In addition to Baltimore, the Railroad Administration's order for the consolidation of ticket offices includes the following Eastern and Middle Western cities: New York, Boston, Philadelphia, Pittsburgh, Buffalo, Syracuse, Rochester, Wilmington, Del.; Atlantic City, Cleveland, Cincinnati, Detroit, Newark, N. J.; Indianapolis, Toledo, Dayton, O.; Columbus, O.; Reading, Pa., and Williamsport, Pa.

Railway to Camp McClellan.

A movement has been started at Anniston, Ala., to build a railway from there to Camp McClellan and a committee of five members has been named to raise \$100,000 for the purpose. They are W. H. Weatherly, W. H. McKleroy, Joseph Saks, Ross Blackmon and L. L. Crump. It is said that \$30,000 has already been subscribed toward this amount.

The line is to be operated with either electric or gas electric cars and A. L. Kenyon, formerly manager at Anniston for the Alabama Power Company, has been requested to give the organizers the benefit of his advice, based on his experience in railway operation. It is argued, according to a report from there, that the large numbers of soldiers being trained at Camp McClellan would assure a profit for the railway from the beginning of its operation.

The committee will immediately take steps to form a company and to carry out the plan as speedily as possible.

COAL STORAGE AT NEWPORT NEWS.

Government Requirements to Be Met by the Chesapeake & Ohio Railway.

To provide fuel facilities for the Government at Newport News, according to the annual report of the Chesapeake & Ohio Railway, it has been arranged to construct a coal storage plant there with a capacity of 200,000 tons, which can be increased to 300,000 tons by the extension of track and trestle, and the loading-out capacity to be 6000 tons a day, which can be increased to 12,000 tons.

During the year 1917 the company acquired at par the entire capital stock, 10,000 shares and \$500,000 par amount of coupon notes of the Western Pocahontas Fuel Co., a corporation owning the Dorothy and Sarita coal properties in West Virginia, which the Chesapeake & Ohio is developing to protect its fuel supply.

The income statement shows the following: Operating revenues \$54,643,794, increase as compared with 1916, \$4,800,481; operating expenses \$38,105,806, increase \$5,407,130; net operating revenues \$16,537,988, decrease \$597,649; operating income after taxes \$14,098,657, decrease \$1,400,376; income available for interest after deducting miscellaneous income, rentals, etc., \$15,656,173, decrease \$393,542; net income after interest \$7,066,378, decrease \$600,503; surplus after dividends

\$4,555,114; decrease \$1,856,136. There were two dividends of 2 per cent, each, totaling \$2,511,264, an increase of \$1,255,632. The total assets are over \$345,800,000; increase over \$24,870,000.

Atlantic Coast Line Appointments.

The Atlantic Coast Line Railroad announced the following appointments on May 1:

W. B. Darrow, superintendent of transportation for the system, with office at Wilmington, N. C.

J. Lowell White, superintendent of transportation for the first division, with office at Rocky Mount, N. C.

C. M. Cobb, superintendent of the Norfolk district, at Norfolk, Va.

W. H. Newell, Jr., trainmaster of the Norfolk district, with office at Tarboro, N. C.

R. B. Hare, superintendent Columbia district, at Columbia, S. C., succeeding G. G. Lynch, retired. The post of assistant superintendent for this district is abolished.

Liberal Subscription for Liberty Bonds.

The Mason & Hanger Company having the contract to build an extension from the Nashville, Chattanooga & St. Louis Railway near Hermitage Station to the Government powder plant near Hadley's Bend, has subscribed for a total of \$100,000 Liberty Bonds in Nashville, Tenn., according to a report from there, which, together with a total of \$60,000, subscribed by the company's employees on this job, makes a grand total of \$160,000 in Liberty Bonds taken by men engaged on this one enterprise.

Southern Passenger Rate Committee.

W. J. Craig, passenger traffic manager of the Atlantic Coast Line Railroad, has been appointed chairman of the Southern passenger rate committee by C. H. Markham, regional director of railroads in the South, with headquarters at Atlanta. Associated with him on this committee are S. G. Hatch and W. A. Russell, who are passenger traffic managers of the Illinois Central and the Louisville & Nashville railroads, respectively.

Railroad to Have Concrete Track.

According to a report from Drumright, Okla., plans are in progress for the construction of a railroad built with concrete tracks on which gasoline-operated locomotives will run between there and Shamrock. Both engines and cars are to have rubber tires. Economy of construction and simplicity of operation are claimed for such a road. Estimated cost about \$100,000. Business men of both towns are interested.

Railroad To Be Sold.

A report from Pensacola, Fla., says that G. Earl Hoffman has been appointed special commissioner to sell the Georgia, Florida & Alabama Railroad and its equipment to satisfy claims totaling \$4,728,508 against the property.

\$188,500 for a Railroad.

A report from St. Louis says that the purchase price of the Ozark Valley Railroad, which was recently bought at receiver's sale by S. Bender, president of the Bender Iron & Supply Co. of Shreveport, La., was \$188,500, this being reported to the court by B. W. Freudenthal, special master.

Ordered 26 Steel Cars.

The Charleston Consolidated Railway, Gas & Electric Co., Charleston, S. C., has ordered 26 pay-as-you-enter street cars from the Cincinnati Car Co. This includes 16 double-truck cars with center entrances.

Railroad Notes.

The Southern Railway announces that W. S. Murrian has resigned as superintendent of motive power of its middle district to engage in other business, and that the position has been abolished, the authority of E. C. Sasser, superintendent of motive power at Charlotte, N. C., being extended to cover the lines east.

P. C. Allen has, it is announced, been appointed superintendent of the Baltimore division of the Baltimore & Ohio Railroad, succeeding C. B. Gorsuch, who has been granted an indefinite leave of absence.

Good Roads and Streets

Bonds Voted.

Ellisville, Miss.—City voted \$3000 bonds for street paving. Hardy, Ark.—Sharp county voted \$45,000 bonds for road construction.

Oneida, Tenn.—City votes June 1 on issuing \$20,000 bonds for street improvements.

Contracts Awarded.

Baltimore, Md.—City awarded \$198,000 contract for street paving, cement sidewalks, concrete curbing, etc.

Fort Sill, Okla.—Government awarded contract for constructing 2 miles of concrete road 24 feet wide.

Gaffney, S. C.—Cherokee county awarded contract for construction of 12-mile highway.

Louisville, Ky.—City awarded \$45,239 contracts for street paving.

Contracts to Be Awarded.

Batesville, Ark.—North Arkansas Highway District No. 2 will invite bids for constructing 80 miles of highway.

Jonesboro, Ark.—Craighead county receives bids until May 24 for 24 miles of road construction with concrete culverts and bridges.

La Grange, Ky.—Oldham county opens bids May 16 for constructing 9-mile water-bound macadam road.

Osceola, Ark.—Mississippi county will invite bids for constructing 25-mile bituminous macadam highway.

Prince George, Va.—State opens bids May 15 for building 14 concrete road.

TEXTILES

Chickasaw Hosiery Mill Plans.

Final plans for the Chickasaw Hosiery Mills, Oklahoma City, provide for an equipment of machinery for a daily output of 350 to 400 pairs of whole and half cotton and lisle hose. The main building will be 103x57 feet, and the dyehouse 60x40 feet, both of brick mill construction, costing \$30,000. From 80 to 100 knitting machines, costing \$30,000, dyeing equipment and a 150-horse-power steam and electric generating plant with electric power drive will be installed. W. H. Sears of Chattanooga, Tenn., is the architect.

Princeton Hosiery Mills.

An investment of \$8000 for building and \$20,000 for machinery is the plan of the Princeton (Ky.) Hosiery Mills, recently mentioned as organized to establish a plant. This company is capitalized at \$30,000, and its officers are: W. E. Cochran, president; R. E. Hearne, vice-president; G. G. Haralson, secretary-treasurer. The mill building will be 190x32 feet, of brick construction, and the machinery will include 50 knitters with electric power drive.

Dalton Mill Addition.

Contract has been awarded to the Park-Grimes Company, Chattanooga, Tenn., for erecting the building of the Dalton (Ga.) Hosiery Mills, recently mentioned as adopting plans and specifications. This new structure will be three stories high, 120x60 feet, of brick and concrete construction, costing \$16,000. It will be equipped with machinery for a daily capacity of 600 dozen pairs of hose.

Textile Notes.

J. S. Frost, J. E. Black and Dave De Moss of Burlington, N. C., have incorporated the Graham (N. C.) Hosiery Mills with \$50,000 capital.

Report states that the Florencé Mills, Forest City, N. C., will enlarge dyehouse to provide facilities for own product and that of the Alexander Manufacturing Co., now building a mill.

A plant will be established at Murfreesboro, Tenn., by the Sunshine Hosiery Mills Co. of Chattanooga. For this mill the company has leased a building and ordered 40 knitting machines with power.

The Mason Cotton Mills Co., Kings Mountain, N. C., recently incorporated with \$125,000 capital, has organized to succeed the Klotho Mills, with 7600 spindles. J. C. Mason is president-treasurer; C. B. Armstrong, vice-president; A. E. Cline, secretary.

A four-story 150x50-foot brick building costing \$50,000 will be erected by the People's Hosiery Mill, Wilmington, N. C., recently organized with \$200,000 capital. Rhodes & Underwood are the architects-engineers, and the mill will be equipped for a daily capacity of 1000 or more dozen pairs of hose.

Comments, Kicks and Commendations

In order to permit our readers to express their views on what the Manufacturers Record stands for, this page is open for suggestions, comments or criticisms.

None Doing More for America.

Home Canner Manufacturing Co., Hickory, N. C.—Enclosed find our check for \$5 for one year's subscription to the MANUFACTURERS RECORD. In our opinion there is no paper in the country that is doing more for America than is the MANUFACTURERS RECORD.

Most Valuable in Its Line.

C. B. Barnes, Kittrell, N. C.—Your paper is the most valuable I have read in its line, and in its attitude towards this world war. Keep the good work up. It is a work which has long been needed.

Voicing the Nation's Sentiment.

W. F. Roberts, Greenville, S. C.—I enclose check for continued subscription.

Wish I was able to tell you how much I appreciate your paper and patriotic efforts to arouse the nation to the great danger confronting us. It's a great misfortune that every man, woman and child in America is not a subscriber and reader.

I meet a great many people, and you can feel assured that you voice the sentiment and feelings of 90 per cent. of the people.

To hell with the Germans!

The Issue Squarely Stated.

George H. Milne, Kenosha, Wis.—There came into my hands this morning a copy of your publication, issue of April 25, and I have read with the keenest pleasure the editorial entitled "The Struggle is Unto Death," which appears at the head of your editorial page 39, also a letter of Mr. Willis Boyd Allen entitled "The Clarion Call of Action." Both of these articles state the issue squarely and perhaps as concisely as can possibly be. The spirit in which they are written is immensely gratifying to me, and I am anxious to see more of your paper.

Will you kindly enter my personal subscription and see that the paper is directed to my home address, 459 Durkee Ave., Kenosha, Wis.? I enclose herewith my check for \$5, which, I understand, is your yearly charge.

Editorials Worth the Price of Subscription.

Albert Steves, Jr., manager, San Antonio, Texas.—We started taking your paper for the purpose of getting the prospects that it contained, and although about 90 per cent. of them that we get through your paper have already become real realities, nevertheless your editorials against the Germans are worth while the price of the subscription, and that is just why we are subscribing for your paper again.

As you will note from this letter we have several service stars ourselves, in fact, we have three more that do not show, and your editorials just hit us right and in the right place.

We are sending you herewith our draft for another year's subscription.

Patriotic Efforts Commended.

Cary Spring Works, New York.—We are in receipt of your letter of April 26, and are returning herewith contract duly signed.

We wish to take this opportunity of commending you upon your very patriotic effort to rouse the nation to full realization of its duties.

Vigorous Pro-Americanism Needed Now.

Jennings Vandaveer, Manufacturers' agent, Houston, Tex.—Enclosed herewith you will find check for \$5 for renewal of subscription.

We heartily approve of your editorial policies, and believe if more of the publications in this country would take your very decided and emphatic stand on the conduct of the war and the treatment that should be accorded to enemy spy activity in this country it would have a healthy effect.

Houston and vicinity are loyally subscribing to Liberty Bonds. In fact, a man who was on trial here yesterday for violation of the espionage act had recently written a letter saying, in part, that "the fools have gone crazy on the subject of Liberty Bonds," and that he had "bought a Liberty Bond to hide behind."

Setting a Good Example.

Thomas Huston, Columbus, Ga.—There is so much good matter coming along in every issue of the MANUFACTURERS RECORD that I want it sent to my father. He is in the mercantile business, but he can get a lot of good out of each issue.

Please enter subscription for one year to be sent to R. E. Huston, Henderson, Tex., and send me invoice.

The Supreme Question Now.

James Gould, road, drainage, municipal bonds, Pine Bluff, Ark.—Enclosed find \$5 subscription to your most valuable paper. There is not another periodical that comes into my office that I prize as much as I do yours, as you hit from the shoulder, and hit hard on the question that should now be uppermost in every American's heart, and that is to win this war.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

AIRPLANE PLANTS, STATIONS, ETC.

Ga., Americus—Hangars.—Government will erect 4 additional hangars; steel construction; Hardaway Contracting Co., Contr., Columbus, Ga.

BRIDGES, CULVERTS, VIADUCTS

Ky., La Grange.—Oldham County Comms. will construct concrete bridges and culverts on La Grange and Bedford State-Aid Road No. 93C1; opened bids May 6; C. E. Overstreet, County Clerk.

Okla., Muskogee.—Muskogee County Comms., Muskogee, will construct concrete girder bridges on Jefferson Highway; Bridge No. 133-C, 40-ft. reinforced concrete girder, 1 mi. south of Summit; Bridge No. 134-C, 80-ft., consisting of two 40-ft. reinforced concrete girders, 2½ mi. south of Summit; bids until May 6; bids on 2 classes of construction of piers and abutments, concrete and stone masonry; county to furnish steel for reinforcement. T. P. Clonts, County Engr., Muskogee. (See Machinery Wanted—Bridge Construction.)

Va., Petersburg.—City let contract W. B. Bradley Construction Co., Richmond, at \$7335.39 to reconstruct Bishop's Bridge; pile trestle; R. D. Budd, City Engr. (Lately noted.)

CANNING AND PACKING PLANTS

Fla., Homeland.—Homeland Citrus Growers' Assn. of Polk County Citrus Sub-Exchange will rebuild burned packing plant; fireproof construction; brick or galvanized iron.

Miss., Laurel.—F. L. Matthews, of Laurel, L. C. Mays, of Mays & Dibleux, New Orleans, La., and others plan to establish cannery; contemplate purchase of Laurel Compress & Warehouse Co.'s property, including 4½-acre site and warehouse and shed covering about ¼ acre.

S. C., Orangeburg.—Chamber of Commerce is interested in plan to erect cannery.

Tex., Port Arthur.—Civic League is interested in plan to establish cannery.

COAL MINES AND COKE OVENS

Ala., Dora.—May & Phillips Coal Co., capital \$200,000, inceptd. by G. May, Fannie May and John D. Phillips.

Ky., Covington.—Sewell Coal & Oil Co., capital \$250,000, inceptd. by Harvey Myers and U. J. Howard of Covington; B. G. Williams of Frankfort, Ky.; A. W. Sewell of Cincinnati, O., and others; advises Manufacturers Record: Company not yet organized; acquires several thousand acres oil and coal lands in Kentucky for development; machinery plans not decided.

Ky., Hazard.—Elk Fork Coal Co., capital \$125,000, inceptd. by C. A. Tribbey, W. E. Davis and H. E. Bullock.

Ky., Pineville.—Harlan Peacock Coal Co. organized; Henry Broughton, Prest.; Mason Combs, V.-P.; Jas. M. Gilbert, Secy.-Treas.; E. L. Shell, Mgr.; develop 100 acres; capacity not decided. Lately noted inceptd., capital \$24,000. (See Machinery Wanted—Rails, etc.)

Ky., Providence.—Luton Mining Co., capital \$100,000, inceptd. by S. K. Luton, W. J. Nisbet, Percy D. Berry and N. F. Cox.

Ky., Mt. Sterling.—Dorton Branch Coal Co. increased capital from \$30,000 to \$70,000.

Ky., Madisonville.—O. & R. Coal Co., capital \$20,000, inceptd. by James D. Overall, J. Basil Ramsey and Goldie Overall.

Ky., White Star.—White Star Coal Co., 120 Broadway, New York, W. L. Hammond, Gen. Mgr., White Star, increased capital from \$120,000 to \$300,000; advises Manufacturers Record: Acreage 1500; daily output of 1000 tons to be increased to 1500 tons within 6 months. (See Machinery Wanted—Motors; Fans; Rails; Wire.)

Ky., Williamsburg.—Trace Fork Mining Co., capital \$30,000, inceptd. by E. C. Disel, J. M. Freeman and S. S. Lawson.

Md., Baltimore.—Wright-Gibson Coal Co., Pittsburgh, Pa., contemplates building coal tipples, garage, stables, storage structures and office building; cost \$75,000 to \$100,000. (Lately noted.)

Tenn., Brierleyville.—Cross Mountain Coal Co., Wm. H. Van Benschoten, Prest., lately noted increasing capital from \$100,000 to \$200,000, advises Manufacturers Record: In addition to property already developed, have 1500 acres under development; daily output 600 tons.

W. Va., Charleston.—Laurel Coal Corp., capital \$5000, chartered by E. M. Johnson, W. W. Hall, M. G. Brown and others.

W. Va., Charleston.—Liberty Collieries

Co., capital \$150,000, inceptd. by M. E. Moore and C. H. Hetzel of Charleston, C. A. Smith of Chillicothe, Ohio, and others; purchased coal land and plans development.

W. Va., Chattahoochee.—West Thacker Coal Co., Williamson, W. Va., organized by Thos. West of Williamson, H. H. Funk and Belle Musick of Sutton, Ky.; develop 60 acres; wagon mine; estimated capacity 2 cars daily.

W. Va., Clarksburg.—Mountain State Coal & Coke Co., capital \$1,000,000, inceptd. by H. W. Kopp, E. D. Tucker, Jos. L. Walton and others.

W. Va., Glen White.—E. E. White Coal Co. will build \$150,000 coal tipples; steel construction; daily capacity 5000 tons coal.

W. Va., Weston.—P. C. Lynch Coal Co., Beckley, W. Va., acquired 1077 acres coal land on Stone Coal Creek in Lewis County, about 3 mi. from Weston, additional to 400 acres acquired recently along Baltimore & Ohio R. R.; expend \$200,000 for installation of mining equipment and establishment of mining town.

W. Va., Williamson.—West Williamson Coal Co., capital \$10,000, inceptd. by H. T. Williamson, C. H. Whitescarver, G. W. Hatfield and others.

CONCRETE AND CEMENT PLANTS

Fla., Pinellas Park.—Concrete Brick and Stone—Adamant Brick Co., organized by L. R. Nordquist, H. G. Gilbert, Geo. Hand and W. S. Merrell; manufacturers brick and stone; has building and machinery.

W. Va., Charleston.—Concrete Pipe.—Charleston Crushed Stone Co., Harold W. Abraham, Secy., Morrison Bldg., may install equipment to manufacture concrete pipe. (See Machinery Wanted—Concrete Machinery.)

COTTON COMPRESSES AND GINS

Mo., Poplar Bluff.—Matthews Co. will rebuild cotton gin reported burned at loss of \$3500.

COTTONSEED-OIL MILLS

Ga., Milledgeville.—Milledgeville Cotton Oil Mill will rebuild plant reported burned at loss of \$250,000.

DRAINAGE SYSTEMS

Mo., Hannibal.—South River Drainage District, B. F. Smiley, Chief Engr., invites bids for excavating and laying \$25,000 worth of tile arranging from 12 to 30 in. (See Machinery Wanted—Drainage Construction.)

N. C., New Holland.—Mattamuskeet Drainage Comsn., S. W. Frescoln, Supvr. Engr., New Holland, will contract for clearing canals; 200,000 cu. yds. excavation; plans, specifications, etc., on file; invites bids. (See Machinery Wanted—Dredging.)

S. C., Foreston.—Clarendon County Commissioners contemplate formation of drainage district to comprise 8000 acres between Foreston and Greeleyville; plan to construct main canal along county line.

ELECTRIC PLANTS

Ala., Headland.—City voted \$10,000 bonds to improve electric-light plant and waterworks. Address The Mayor.

Ark., Rector.—Luther King is preparing plans for construction of power-house.

Okla., Stonewall.—Oklahoma Power & Transmission Co. contemplates extending electric transmission system to Stonewall.

Ga., Atlanta.—Government let contract to Bailey Oliver Electric Co., 73 Walton St. Atlanta, at \$3300, to furnish addition to main switchboard, power tablet and electric feeders for light and power, U. S. Penitentiary. (Lately noted inviting bids.)

La., Gueydan.—City, M. I. Ramsey, Mayor, will expend \$15,000 on electric-light plant; alternating current; crude oil engine; develop 50 to 100 H. P.; Engr., J. B. McCrary Co., Atlanta, Ga.; bonds lately noted voted. (See Water Works.)

Okla., Jennings.—City is reported to vote on \$25,000 bonds for electric-light system. Address The Mayor.

Tenn., Rutherford.—City voted \$10,000 electric-light plant bonds. Address The Mayor.

Tex., Nixon.—Nixon Electric Light & Power Co., organized; W. L. Hoover, Mgr.; acquired property of Nixon Electric Co.; develops 50 H. P.; \$12,000 plant; contemplates installing alternator. Lately noted inceptd., capital \$12,000, by J. F. Wood, Jr., W. L. Hoover and C. T. Morene. (See Machinery Wanted—Alternator.)

Va., Richmond.—Williams Power Co. will extend and improve electric-light system. (Lately noted to have increased capital from \$50,000 to \$150,000.)

Va., Norfolk.—Virginia Ry. & Power Co. let contract Nichols & Lindermann, Sea-board Bank Bldg., Norfolk, to place reinforced concrete roof on electric substation, making structure fireproof; cost \$11,700.

W. Va., Parkersburg.—Parkersburg Iron & Steel Co. will erect addition to power plant; 30x45 ft.; cost \$12,000.

FERTILIZER FACTORIES

Ark., Little Rock.—Union Fertilizer & Reduction Co., capital \$10,000, inceptd. by Joe Berger, Sr., G. B. Rose, C. E. Rose and Ike Kempner.

FLOUR, FEED AND MEAL MILLS

Ark., Arkadelphia.—Claude Tobey will erect flour mill; manufacture corn flour, corn meal, etc.

Ga., Columbus.—Thos. Huston is interested in proposed installation of machinery to manufacture peanut flour. (See Machinery Wanted—Peanut-flour Machinery.)

La., New Orleans.—Carl Adler of Adler Export Co. purchased site 160x160 ft. on which to build factory and warehouse; manufacture and handle cattle feed; erect 2-story building; cost, with equipment, \$50,000.

Tenn., Ripley.—Ripley Milling Co., capital \$25,000, inceptd. by V. P. Morearty, W. Dan Majors, J. A. Paris and others.

Tex., Dallas.—Morton Milling Co. increased capital from \$500,000 to \$700,000; let contract to Lehrack Contracting & Engineering Co., Kansas City, Mo., to erect, on east plus basis, 40x150-ft. mill-construction building, cost \$100,000; plans by Alfis-Chalmers Mfg. Co., Milwaukee, Wis.; install machinery; daily capacity 1000 bbls. flour and 500 bbls. cornmeal. (Lately noted to erect additional mill.)

Tex., Port Arthur.—J. M. Holder will establish grist mill.

FOUNDRY AND MACHINE PLANTS

Ark., Little Rock.—Electric Motors.—Mutual Motors Co. contemplates installing shop; equipment to include lathe with 8-in. to 12-in. swing, 20-in. back-gear drill press, electrical equipment, air compressor, portable crane, small tools, etc.

Fla., Jacksonville.—Machinery.—Jacksonville Machinery and Boiler Works, foot of Dora St., organized; B. M. Cole, Prest.-Mgr.; J. J. Field, V.-P.; F. C. Sawyer, Secy.; continues established plant. (Lately noted inceptd., \$10,000 capital.)

Ky., Louisville.—Iron and Steel Bars.—Louisville Iron & Steel Co. will reconstruct main building reported burned.

N. C., Winston-Salem.—Machinery.—Auto Knot Machine Co., capital \$100,000, inceptd. by E. L. Knight and Mrs. C. A. Knight of Reidsville and A. R. Eanes, Draper, N. C.

Okla., Tulsa.—Iron Works.—Tulsa Iron Works Co., capital \$15,000, inceptd. by M. J. Flanagan, T. J. Flanagan and F. W. Byer.

S. C., Greenville.—Textile Equipment.—Acme Loom Harness & Reed Co. increased capital from \$15,000 to \$30,000.

GAS AND OIL ENTERPRISES

Ky., Covington.—Sewell Coal & Oil Co., capital \$250,000, inceptd. by U. J. Howard of Covington and others; acquire for development several thousand acres oil and coal lands. (See Coal Mines and Coke Ovens.)

Ky., Louisa.—Grant Drilling Co., capital \$2000, inceptd. by C. E. Grant, F. T. D. Wallace, Jr., and Mrs. M. H. Wallace.

La., Shreveport.—R. L. Crook and Wm. R. Spann purchased American Oil Refinery for \$40,000 and will enlarge; secure oil from Pine Island Dist.; present daily capacity 200 bbls.

Okla., Ardmore.—Oil Refinery.—Nimrod Oil & Refining Co., capital \$500,000, inceptd. by

P. C. Lange, D. C. Fitzgerald and B. A. Simpson.

Okla., Chickasha—Oil Refinery.—Chickasha Refining Co. organized; Ed. F. Johns, Pres.; Clark Trammel, V.P.; J. R. Travis, Gen. Mgr.; S. M. Cowan, Secy.; J. L. Breneman, Treas.; build oil refinery to cost \$100,000. (Lately noted inceptd. with \$300,000 capital.)

Okla., Chickasha.—Minnett Petroleum Co., capital \$250,000, inceptd. by C. S. Minnett, C. W. Moffatt and Henry Minnett.

Okla., Chickasha—Oil Refinery.—Norge Oil, Gas & Refining Co., capital \$100,000, inceptd. by C. W. Thomas of Norge, Okla., H. W. Duckwell of Tuttle, Okla., and Tom Gann of Ninnekah, Okla.

Okla., Dewey.—Round Up Oil Co., capital \$50,000, inceptd. by T. H. Robinson, B. A. Lewis and J. M. Gilstrap.

Okla., Duncan.—Choctaw Petroleum Co., capital \$350,000, inceptd. by J. M. Claypool of Duncan, T. W. Hunter of Hugo, Okla., and R. C. Scott of De Queen, Ark.

Okla., Enid.—Purity Oil & Gas Co., capital \$100,000, inceptd. by E. T. Reid, R. J. Pope and D. C. Rinn.

Okla., Enid.—Hook Oil & Gas Co., capital \$250,000, inceptd. by W. A. Hook, M. V. Gunn and Chas. B. Ray.

Okla., Guthrie.—Oil Refinery.—Empire Oil & Gas Co. will build oil refinery; negotiating for site.

Okla., Healdton.—Healdton Petroleum Co., capital \$50,000, inceptd. by T. S. Holden and Joe Proctor of Healdton and Fred Coogan, Ardmore.

Okla., Lawton.—Comanche Oil & Gas Co., capital \$100,000, inceptd. by A. B. Moore, of Indianola, Okla.; B. G. Lilly, of Muscatine, Ia.; and W. G. Frame, of Elko, Nev.

Okla., Lawton.—Lawton Oil & Gas Co., capital \$100,000, inceptd. by Geo. Boone, F. Weimer and F. A. Parkinson.

Okla., Muskogee.—Chelsea-Ridge Oil & Gas Co., 509 Phoenix Bldg., capital stock \$50,000, will install 5 mi. 2-in. pipe. (See Machinery Wanted—Pipe and Casing.)

Okla., Oklahoma City—Oil Refinery.—Columbian Oil & Refining Co., capital \$400,000, inceptd. by J. B. McNew of Oklahoma City, L. E. Lyon and J. H. Fugate of Binger, Okla.

Okla., Oklahoma City.—Pioneer Oil Shale Products Co., capital \$100,000, inceptd. by A. T. Kellogg, W. J. Black and H. C. Wolf.

Okla., Oklahoma City.—Tipton Petroleum Co., capital \$55,000, inceptd. by L. C. Brown, W. C. Van Aredale and Harry Grubbs; all of Billings, Okla.

Okla., Oklahoma City.—Gasoline Refinery.—Oklahoma Gasoline Refinery Co., capital \$500,000, inceptd. by J. A. Maupin, H. W. Ferguson and S. T. Bisbee.

Okla., Walters.—Oil Refinery.—Blue Ribbon Oil & Refining Co., Oil Exchange Bldg., organized; \$300,000 capital stock; advises Manufacturers Record; John Aldridge, Pres. and Gen. Mgr.; Oklahoma City; J. W. Bratton, Asst. Gen. Mgr.; D. B. Malernee, V.P.; A. R. Patterson, Treas.; Clyde Aldridge, Secy.; all of Walters; construct 14 mi. 4-in. pipe line; capacity pumping station 10,000 bbls.; receiving bids on complete construction of 5000-bbl. refinery; Wayne Colver, Engr., Oklahoma City. Lately noted to build refinery, having 20-acre site. (See Machinery Wanted—Oil-refinery Equipment.)

Tex., Bridgeport.—Bridgeport Oil & Gas Co., capital \$50,000, inceptd. by H. G. Leonard, W. H. John and E. B. Poore.

Tex., Brownwood.—Broome Oil Co., capital \$12,000, inceptd. by C. A. Broome, C. P. Broome and W. B. Hunter.

Tex., Brownwood.—Liberty Oil & Gas Co., capital \$50,000, inceptd. by G. A. O'Hara, C. H. Sharman and Leo. Rassieur.

Tex., Cisco.—Oil Refinery.—Beaver Valley Oil & Refining Co., L. W. Tarkington, Pres., will build oil refinery.

Tex., Fort Worth.—Oil Refinery.—Oklahoma Producing & Refining Corp. of America organized; build oil refinery; develop oil leases in shallow well district around Brownwood and Cisco, Tex.

Tex., Fort Worth.—Oil Refinery.—Southern Oil Refining Corp., Ltd., organized; W. W. Alexander, Pres.; Ennis, Tex.; E. A. Bedcheck, V.P.; Wichita Falls, Tex.; Geo. W. Dawley, Secy.-Treas. Fort Worth; build oil refinery on unit plan; at first construct 2 units with daily capacity of 500 bbls. each; initial investment \$75,000.

Tex., Port Arthur.—Oil Refineries.—Gulf Refining Co., Port Arthur and Pittsburgh, Pa., increased capital from \$7,500,000 to \$15,000,000.

W. Va., Huntington.—Lowther Oil & Gas Co. organized; S. S. Melvin, Engr., Leigh-

ton, Ky.; drill for gas and oil; install 2-in. to 10-in. pipe. Under Kentucky, lately noted inceptd., \$50,000 capital. (See Machinery Wanted—Pipe.)

HYDRO-ELECTRIC PLANTS

Tenn., Columbia.—Southern Cities Power Co., M. R. Stern, Gen. Mgr., Box 115, advises Manufacturers Record relative to hydro-electric plant on Duck River: Cost \$100,000; timber crib dam 12 ft. high; concrete powerhouse substructure and brick power-house; 15 mi. transmission line to Mt. Pleasant, cost \$25,000; first installation to provide power for Mt. Pleasant; develop 450 H. P.; no bids required; all equipment purchased and construction provided for. (Under Chattanooga, lately noted inceptd., capital \$50,000, by Geo. B. Adams and others; also, under Columbia, previously mentioned as organizing company, etc.)

ICE AND COLD-STORAGE PLANTS

Ala., Florence.—J. F. Ellis, of Ellis Ice & Coal Co., Augusta, Ga., will build ice plant; daily capacity 20 tons.

La., Gueydan.—City, M. I. Ramsey, Mayor, will install ice plant, 10 tons daily capacity; cost \$10,000; bonds lately noted voted. (See Water Works.)

Miss., Hattiesburg.—War Dept., Washington, D. C., let contract to T. S. Moudy & Co. (general contractors at camp) to erect ice and refrigerating plant at Camp Shelby; daily capacity, 30 tons ice; contain cold storage plant; cost \$50,000; T. S. Moudy & Co. sublet contract to Union Insulating Co., of Chicago.

N. C., Asheville.—City Commrs., authorized purchasing agent to invite bids on installation of refrigerating plant for city market.

S. C., Camden.—Hermitage Cotton Mills will install ice plant; daily capacity 8 tons; ordered equipment.

Tex., Fort Worth.—Carter Grocery Co. will erect cold storage rooms at 215 W. 15th St.; cost \$3000.

W. Va., Clarksburg.—Swift & Co. (main office, Chicago) will erect cold-storage building; brick and concrete; cost \$35,000.

IRON AND STEEL PLANTS

Ala., Ensley.—Steel Furnaces, etc.—Tennessee Coal, Iron & Railroad Co., Birmingham, let \$100,000 contract to W. H. Ebsary, Buffalo, N. Y., for brick construction (consuming 6,000,000 bricks) for furnaces and buildings of big additions heretofore detailed; begins work May 15; American Bridge Co., 30 Church St., New York, will erect iron and steel structures as brick contractor proceeds with his contract; this is in connection with installation of ninth open hearth steel furnace to be completed in Nov., increasing company's monthly steel production to 120,000 tons; expects to complete 110-inch Fairfield plate mill by Oct. 1. (Previously announced.)

Ala., Trussville.—Iron Furnace.—Birmingham-Trussville Iron Co., E. A. Shedd of Chicago, Pres., Jno. H. Adams of Trussville, Gen. Mgr., has blown in furnace, idle 7 yrs.; overhauled and modernized entire plant; installed locomotive cranes, boilers, pumps, coal bins, tracks, etc.; furnace daily capacity 225 tons iron; operates 300 coke ovens, iron mines, coal mines, etc.

Tex., Rusk.—Iron Furnace, etc.—Texas Steel Co., W. C. Ratcliffe, Gen. Mgr., Keith Bldg., Beaumont, Tex., estimates repairs and improvements to Rusk plant will cost \$75,000; advises Manufacturers Record: Installing large pump for water circulating; improvements for blast furnace to include 2 new stock trestles for raw materials; trestles equipped with bins for ore, coke and limestone; Hunt system of mechanically filling furnace being installed; old wooden structure which housed blowing engines being replaced with brick building with cement floor; wooden hoist-tower to be replaced with steel structure; roofing material now on site to recover casthouse, boiler-house and other buildings; repairs and improvements to pipe foundry will total \$25,000; include replacing motors and overhauling cranes; handle molten metal direct from furnace to pipe foundry in 15-ton ladles; employ 250 to 300 men at furnace, foundry and ore mines. (Lately noted.)

Va., Glen Wilton.—Iron Furnace.—Princess Iron Corp. acquires Princess Furnace Co. with iron furnace, Callie Mining Co. with coal mines, and Circle Ore Co. with iron ore land. (Lately noted chartered with \$2,500,000 capital.)

IRRIGATION SYSTEMS

Tex., Knippa.—Chas. A. Lindsey of Wichita, Kans., and others are having preliminary surveys made by W. C. Jameson, Engr., Austin, Tex., for irrigation system; plan to construct main dam on Frio River, about 14 mi. north of Knippa; dam to be of sufficient height and dimensions to create reservoir 7 mi. in length, up Frio River, and impound 500,000 acre ft. of water to irrigate 100,000 acres annually.

LAND DEVELOPMENTS

Fla., Miami.—Florida Cultivating Co., A. N. Sakhomovsky of New York, Pres.; Jno. D. Shiski of Miami, Gen. Mgr., purchased 10,880 acres Dade County land, 20 mi. from Miami; divide land into farms; erect dwellings and general farm buildings; establish Russian colony; locate 350 families; construct 78x42 ft. warehouse for agricultural machinery and supplies.

Fla., Pensacola.—Florida Home Orchard Co., capital stock \$10,000, organized; Ellis Brown, Pres.; E. Hunter Brown, V.P.; A. T. Barkdull, Secy.-Treas. and Engr. in charge; develop 1684 acres for peach and pecan orchards; cost about \$50,000. (Lately noted.)

Ga., Augusta.—Wingfield Orchards, capital \$5000, inceptd. by Robt. W. Wingfield, Susan W. Wingfield and Nisbet Wingfield.

Ga., Savannah.—Puritan Dairy Farms organized; H. Rosenheim, Pres.-Treas.; Max Deich, V.P. and Secy.; L. R. Roth, Supt.; develop 150 acres; erect dairy barns, house and other buildings, of brick and wood construction; cost \$15,000. (Lately noted inceptd., \$30,000 capital.)

Okla., Muskogee.—City issued \$100,000 for fair grounds park improvement. Address City Clerk.

LUMBER MANUFACTURING

Ala., Mobile.—Marine Lumber Co. increased capital from \$7500 to \$50,000.

Ark., Helena.—A. M. Richardson Lumber Co., capital \$100,000, inceptd.; A. M. Richardson, Pres.; Louise McDonald Richardson, V.P.; W. M. Daily, Secy.; A. M. Richardson, Treas.

Fla., Fort Lauderdale.—Cypress Creek Lumber Co., capital \$30,000, inceptd.; J. L. Holmberg, Pres.; M. J. McMichael, V.P.; J. S. Rhine, Secy.; D. E. Clune, Treas.

Fla., Kissimmee.—P. C. Clifford will build sawmill; electric power; electricity from municipal electric plant.

Ga., Savannah.—Hilton & Shoaf Lumber Co., capital \$25,000, inceptd. by Thos. Hilton, Alston Shoaf and Jas. I. Newsome.

La., Baton Rouge.—J. W. Darling Lumber Co. (main office, Cincinnati, O.) purchased Istrouma Plantation, 3 mi. from Baton Rouge; will build sawmill to replace plant burned at Wilhelm. (Lately noted, under Wilhelm, to rebuild.)

La., Bogalusa.—Wm. Baer Co. will build hardwood sawmill.

Miss., Leakesville.—Bear Creek Lumber Co. will rebuild plant reported burned at loss of \$100,000.

N. C., Garland.—White Lake Lumber Co., Roseboro, N. C., advises Manufacturers Record: C. A. Trantum, Pres.; Robt. M. Rupp, V.P.; Troy I. Herring, Secy.-Treas.; J. Scott Bell, Mgr.; purchased Garland Lumber Co. mill and railroad; daily output 40,000 ft. lumber; expect to build band mill and planing mill at Roseboro, in fall, capacity 50,000 ft. daily. (Lately noted organized, \$300,000 capital, to develop 11,000-acre timber property, etc.)

N. C., Roseboro.—White Lake Lumber Co., Troy I. Herring, Secy.-Treas., contemplates building band and planing mill, in fall; capacity 50,000 ft. daily. (See N. C., Garland.)

Okla., Miami.—D. J. Landers Lumber Co., capital \$40,000, inceptd. by R. T. Higgle of Miami, D. J. Landers and J. L. Hine of Springfield, Mo.

Tex., Galveston.—Gulf Lumber Co. increased capital from \$25,000 to \$50,000.

METAL-WORKING PLANTS

Fla., Jacksonville.—Culverts, etc.—Dixie Culvert & Metal Co., Talleyrand and Jessie Sts., let contract to Henry T. Jones, 1702 Swift St., to erect 27x50-ft. concrete factory addition and 24x24-ft. wood addition to office; cost \$3000; equipment purchased.

Ga., Macon.—Valves, etc.—Miller Valve & Brass Co., capital \$25,000, inceptd. by Chas. T. Miller, J. W. Clisby and T. E. Ryals.

Mo., St. Louis.—Steel Lockers and Gymnas-

tic Apparatus.—Fred. Medart Mfg. Co. will erect factory addition.

Mo., St. Louis.—Tin Foil, etc.—Johnston Tin Foil & Metal Co., 6020 S. Broadway, is having plans prepared by C. F. Deitering, Archt., Central National Bank Bldg., St. Louis, for plant; 2 stories; 90x107 ft.; cost \$50,000.

Mo., North Kansas City.—Silos.—Illinois Silo & Tractor Co., Bloomington, Ill., will erect factory.

N. C., Concord.—Beds.—Folding Screen Bed Co., capital \$100,000, inceptd. by C. A. Cook and Frank Armfield of Concord, Arthur B. Cook, Baton Rouge, La., and others.

MINING

Ky., Paducah.—Spar.—Lola Spar & Developing Co., capital \$50,000, inceptd. by Ben Weille, James Weille and A. A. Livingston.

Miss., Charleston.—Clay and Gravel.—Davidson County Clay & Gravel Co., organized by Mrs. Myrtle M. Harris and Frank M. Davidson; will develop clay and gravel deposits on 290-acre tract.

Okla., Cordell.—Ottawa-Peoria Mining Co., capital \$50,000, inceptd. by C. E. Thornton, J. G. Price and Wm. Aachte.

Okla., Clinton.—Crestline Mining Co., capital \$300,000, inceptd. by H. L. Qulett of Clinton, H. C. Wallerstedt of Bessie, Okla., and H. S. Darling of Oklahoma City, Okla.

Okla., Quapaw.—Lead and Zinc.—Gold Crown Mining & Royalty Co., Hobart, Okla., organized; C. G. Long, Pres.; J. M. Rule, V.P.; J. P. Russell, Secy.-Treas.; develop 60 acres; now drilling; has 20 acres near Peoria and 40 acres near Lincolnville, Okla. (Lately noted inceptd., \$25,000 capital.)

Okla., Miami.—Redskin Mining Co., capital \$350,000, inceptd. by L. B. Hering and F. R. Bouldin of Miami and F. R. Bulman of Keokuk, Ia.

Okla., Oklahoma City.—Valliere Mining Co., capital \$25,000, inceptd. by F. R. Robert of Oklahoma City, J. R. Stegner of Norman, Okla., and C. M. Mitchell of Baxter Springs, Kans.

Okla., Okmulgee.—Baxter Jack Mining Co., capital \$100,000, inceptd. by H. I. Moseley, F. C. Stevens and L. W. Granston.

Okla., Vinita.—Peerless Mining Co. capital \$100,000, inceptd. by J. E. King and J. A. Miller of Vinita, and D. L. King of Tulsa.

Tenn., Elizabethton.—Bauxite and Iron.—Southern Minerals Corp., B. D. Harmon, Treas., will develop bauxite and iron-ore mines south of Elizabethton.

Tenn., Nashville.—Big Ben Mining Co., capital \$25,000, inceptd. by D. W. Blinn, E. B. Bradley, B. E. McCarthy and others.

Tex., Houston.—Southern Resources Co., capital \$100,000, inceptd. by J. L. Mueller and others.

MISCELLANEOUS CONSTRUCTION

Fla., Belleair.—Swimming Pool.—Bellevue Hotel let contract G. A. Miller, Tampa, to erect swimming pool and casino; 106x129 ft.; fireproof; walls of brick, stuccoed on exterior with cement; interior mainly of concrete lined with tile; swimming pool 60x75 ft. of varying depth; surrounding pool on 4 sides will be walkway along which will be 104 dressing-rooms; tiers of observation seats around 3 sides of pool; pool to be equipped with chute, springboard, etc.; laundry, Turkish baths and drying-room in basement; steam heat; electric light; cost \$75,000; J. F. Shiver, representing Mr. Miller, will supervise construction. (Lately noted under Fla., Tarpon Springs.)

Ky., Louisville.—Swimming Pool.—City let contract Henry Bickel Co. of Louisville to construct swimming pool in Shelby Park; circular, 160 ft. in diam.; separate wading pool for children; cost \$15,000; Joseph & Joseph, Architects, Louisville. (Lately noted.)

Md., Baltimore.—Government Shipping Station.—War Dept., Maj.-Gen. George Goethals, Quartermaster-General, Washington, D. C., negotiating for city waterfront land as site for \$15,000,000 Government shipping station; site is Spring Gardens front, adjoining Port Covington, terminus of Western Maryland R. R.; plans provide for constructing 3 piers, each 1250x300 ft., with ships 250 ft. wide, extending to deep water; build warehouses equipped with loading and unloading machinery, etc.; permanent concrete fireproof construction; completed plant to employ 5000 men; handle all soldiers' equipment except explosives; probably 50-acre site required for plant; whole expenditure may amount to \$20,000,000. (Lately noted to build \$15,000,000 station.)

Mo., Kansas City—River Improvements.—City Engr.'s Dept., Curtis Hill, City Engr., completed plans for commercializing Blue River from its mouth to 15th St.; plans provide for dam at 19th St., but for no lock; boats and barges to be placed on low car below dam and pulled around it to higher level on track by electric power; \$100,000 bonds voted; entire project, including system of drives and dredging of stream, to cost about \$1,000,000.

Mo., Machens—Revetment.—Government will construct 11,750 ft. revetment on Missouri River, 2 mi. from Machens; bids at U. S. Engr. Office, Kansas City, until May 27. (See Machinery Wanted—Revetment.)

Tex., Beaumont—Steamship Terminals.—Gulf Export & Transportation Co. will build steamship terminals replacing present temporary plant; purchased site fronting 1500 ft. on turning basin; construct docks, wharves, warehouses, etc.

S. C., Conway—Dredging and Filling.—Vencer Mfg. Co., W. A. Stilley, Secy., will dredge river bottom at plant and fill in low places on mill site; asks bids. (See Machinery Wanted—Dredging Contract, etc.)

MISCELLANEOUS ENTERPRISES

Fla., Jacksonville—Electrical Supplies.—Wilson Electric Co., capital \$5000, inceptd.; Jesse L. Wilson, Pres.; M. W. Wilson, V.-P.; W. J. Wilson, Secy.-Treas.

Fla., Miami—Bright Bros. of Miami and St. Louis, and Glenn H. Curtis of New York purchased 5000 acres Everglades land; utilize for stock ranch, especially cattle; 5000 to 6000 head beef and dairy stock; cultivate land for cattle feed and to supply homes of ranch employes; plant 1000 acres to forage crops.

Ga., Savannah—Dairy.—Puritan Dairy Farms, capital stock \$30,000, H. Rosenheim, Pres.-Treas., will establish dairy farm on 150 acres 3 miles from Savannah; build brick and wood dairy barns, house, etc., cost \$15,000. (See Land Developments.)

Ky., Paducah—Grain Elevator.—Paducah Grain Elevator Co. will rebuild plant reported burned at loss of \$8000 to \$10,000.

Ky., Paducah—Incinerator.—City let contract Superior Garbage Furnace Co., (J. W. Stokes) Dallas, Tex., and Chicago, Ill., to erect 10-ton incinerating plant; cost \$2300; F. W. Burns, Mayor. (Lately noted inviting bids.)

N. C., Durham—Stock Farm.—John Crawford of Philadelphia, Pa., purchased 1878 acres and will establish stock farm.

Okla., Oklahoma City—Laundry.—National Laundry Co., capital \$50,000, inceptd. by F. S. Evans, H. C. Heppner and A. F. Becker.

S. C., Moncks Corner—Publishing.—Herkeley Publishing Co., capital \$2000, inceptd. by J. Russell Williams and Geo. E. Bonnoitt.

Tenn., Memphis—Drainage Contracts, etc. McWilliams Southern Dredging Co., capital \$100,000, organized for general drainage and dredging; R. H. McWilliams, Pres.; G. A. McWilliams, V.-P.; A. W. Fisher, Secy.-Treas.; Geo. L. Heck, Supt. and Gen. Mgr.

Tex., El Paso—Publishing.—Borderland Publishing Co., capital \$3000, inceptd. by J. D. Ponder, J. E. Quaid and others.

Tex., Cleburne—Potato-curing Plant.—Southern Preserving Assn. of Dallas will build potato-curing plant.

Tex., San Marcos—Laundry.—San Marcos Laundry Co., capital \$5000, inceptd. by A. F. Wilson, R. M. Perry and J. L. Lay.

Va., Norfolk—Building Supplies.—Norfolk Equipment Co., capital \$20,000, inceptd.; M. A. Anderson, Pres.; Jos. T. Lawless, Secy.

MISCELLANEOUS FACTORIES

Ark., Little Rock—Electrical Batteries.—Arkansas Battery Co., capital \$10,000, inceptd.; W. P. Galloway, Pres.-Treas.; J. W. Hamm, V.-P.; C. P. Pierce, Secy.

Fla., Fellsmere—Brooms and Fiber.—Fellsmere Broom & Fiber Co., organized; Walter Duncan, Pres.; Geo. Cheyning, V.-P.; A. G. Even, Secy.-Treas.; R. C. Remick, Gen. Mgr.; will establish broom factory; daily capacity 20 doz. brooms.

Fla., Fort Lauderdale—Peanut Products.—Peanut Products Co., capital \$50,000, inceptd.; J. Francis Weisbrod, Pres.; J. F. Bunn, V.-P.; Louis P. Weidling, Treas.

Fla., Miami—Castor Oil and Peanut Products.—Helm & Walker, Lawyers' Bldg., considering establishment of plant to extract castor oil and peanut oil and manufacture by-products, including peanut butter, flour, etc. (See Machinery Wanted—Oil Presses; Peanut Products Machinery.)

Ky., Louisville—Hides and Tallow.—Marx Hide & Tallow Co. increased capital from \$5000 to \$100,000.

La., Sterlington—Carbon.—Imperial Oil & Gas Products Co. of Pittsburgh, Pa., will build carbon factory.

Md., St. Helena—Bakery.—United States Shipping Board, J. Rogers Flannery, Director of Housing, 1319 F St. N. W., Washington, D. C., let contract to Consolidated Engineering Co., Calvert Bldg., Baltimore, Md., to build bakery, power house, 302 convertible houses, etc.; cost about \$800,000; Edward L. Palmer, Jr., Archt., 513 N. Charles St., Baltimore, Md.

Miss., Yazoo City—Creamery.—Yazoo Ice Co., J. W. Hunter, Mgr., will purchase creamery equipment; has building, power and refrigeration. Lately noted to install creamery in connection with established ice plant. (See Machinery Wanted—Creamery Equipment.)

N. C., Wilmington—Bakery.—Farris Bakery will rebuild plant reported burned at loss of \$4000.

Okla., Calumet—Brooms.—Calumet Broom Co., capital \$2000, inceptd. by J. E. Gambel, D. P. Underwood and Birdie M. Gambel.

S. C., Columbia—Bakery.—Birmingham's Modern Bakery proposes to increase capital from \$1000 to \$10,000.

S. C., Columbia—Candy.—Covin Candy Co. increased capital from \$5000 to \$20,000.

S. C., Charleston—Specialties.—Magnolia Specialty Co., capital \$2000, inceptd.; Sam Cohen, Pres.-Treas.; W. M. Hull, Secy.

Tenn., Lyles—Wood Alcohol, etc.—Bon Air Coal & Iron Corp., W. J. Cummins, V.-P. and Gen. Mgr., Stahlman Bldg., Nashville, advises Manufacturers Record: \$1,300,000 wood chemical plant's main retort building will be of fireproof construction, 400x50 ft., costing \$800,000; 20 retorts, stillhouse, power house, etc., costing \$500,000; purchased machinery and other mechanical equipment; daily capacity 2000 gals. wood alcohol, 40,000 lbs. acetate of lime and 10,000 bu. charcoal; let general building contract to George A. Fuller Co., Fuller Bldg., New York, and Munsey Bldg., Washington, D. C. (Lately noted to establish this plant and wiring principal details to Manufacturers Record.)

Tenn., Maryville—Electrode.—Aluminum Company of America, Pittsburgh, Pa., will build \$1,000,000 electrode-producing plant to furnish materials for its \$2,000,000 nitrate factory lately detailed; erect steel, stone, brick and concrete buildings; electric power; obtain electricity from dams now being constructed at Alcoa and Cheoah on Little Tennessee River; has awarded contracts.

Tex., Brownsville—Bottling.—Coca-Cola Bottling Co., capital \$10,000, inceptd. by G. V. Ducker, W. D. Galloway and J. C. Bogue.

Tex., Dallas—Caps.—Tucker Cap Mfg. Co. increased capital from \$10,000 to \$15,000.

Tex., Houston—Overalls, Etc.—Cyrus W. Scott Mfg. Co. advises Manufacturers Record: Expect to open bids June, 1919, on factory building, cost \$100,000; 7 stories; 160x100 ft.; probably fireproof; install overall machinery. (In April noted increasing capital from \$200,000 to \$700,000.)

Tex., Temple—Granite—Temple Granite Works, capital \$3000, inceptd. by J. F. Lillard, J. P. Terrell and N. P. Woodward.

Va., Petersburg—Beverages.—United Beverage Co., 209 Phoenix St. (Box 407), inceptd.; capital \$25,000; Walter Sachs, Pres.; G. M. Knight, V.-P.; K. V. Wells, Secy.; P. H. Wells, Mgr.; has 3-story building; install soft drink bottling machinery, cost \$10,000. (See Machinery Wanted—Bottling Machinery.)

Va., Staunton—Clothing.—Staunton Mfg. Co. contemplates building plant to cost \$20,000.

W. Va., Sutton—Wood Chemicals.—Sutton Chemical Co. will build additional factory; plant site on south side on Elk River, between this river and Coal & Coke Ry.; wires Manufacturers Record: Under Government contract construct wood distillation plant costing \$320,000, with daily capacity 80 cords.

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Ford automobile repairing. (Lately noted inceptd., \$25,000 capital.)

Ga., Macon—Automobiles.—Fountain-Dunlap Automobile Co., capital \$100,000, inceptd. by R. C. Dunlap (V.-P. Fourth National Bank), Macon; W. D. Fountain (Pres. Planters' Bank), Sycamore, Ga., and others; succeeds R. Kingman Moore's Automobile Agency.

Ga., Newnan—Automobiles.—Jones Motor Co., organized; Harry L. Jones, Pres.; J. M. Finn, V.-P.; use rented building. (Lately noted inceptd., \$13,000 capital.)

Ky., Louisville—Automobiles.—Louisville Carriage & Taxicab Co. increased capital from \$200,000 to \$300,000.

Md., Baltimore—Garage.—Wright-Gibson Coal Co., Pittsburgh, Pa., contemplates building garage, etc. (See Coal Mines and Coke Ovens.)

Md., Baltimore—Garage.—Daniel Eidman of H. D. Eidman & Bro., 2203 Pennsylvania Ave., let contract John C. Clark, 2038 N. Fulton Ave., Baltimore, to erect combination of 6 garages on east side of Stockton St.; 75x74 ft.

Mo., North Kansas City—Tractors.—Illinois Silo & Tractor Co., Bloomington, Ill., will erect factory.

Mo., St. Louis—Automobile Supplies.—Collins Auto Supply Co., capital \$3000, inceptd. by H. P. Finigan, Edw. A. League, F. S. McLafferty and others.

Mo., St. Louis—Automobile Supplies.—Lower Auto Supply Co., capital \$4000, inceptd. by W. H. Finnigan, W. McB. Smith and others.

Mo., St. Louis—Automobile Accessories.—Fleer-Petty Auto Accessories Co., capital \$25,000, inceptd. by H. H. Fleer, F. C. and H. W. Petty and others.

Okla., Tulsa—Automobiles.—Foster-Davis Motor Corp., capital \$150,000, inceptd. by S. W. Parish, Fred L. Gordon and Guy M. Davis.

S. C., Greenwood—Motor Cars.—Smathers Motor Car Co., capital \$10,000, inceptd.; J. R. Smathers, Pres.-Treas.; W. R. Trammell, Secy.

Tenn., Memphis—Automobile Repair Shop.—John C. Dix Son & Co., 235-29 Poplar Ave., will rebuild automobile repair shop reported burned at loss of \$25,000 on building.

Tenn., Memphis—Automobiles.—Cadillac Sales Co., capital \$50,000, inceptd. by G. T. Taylor, A. G. Manning, Kennon Taylor and others.

Tenn., Nashville—Garage.—J. O. Cheek will erect garage; 2 stories; brick; cost \$2500.

Tex., Dallas—Motor Freight Transportation.—Motor Freight Lines organized; Dan D. Rogers, Pres.; Richard Haughton, V.-P. and Gen. Mgr.; M. B. Keith, Secy.-Treas.; motor transportation for freight; 2 divisions; Dallas-Tyler division 100 mi., and Dallas-Fort Worth division, each including intermediate cities. (Lately noted inceptd., \$50,000 capital stock.)

Tex., Victoria—Automobiles.—Victoria Motor Co., capital \$15,000, inceptd.; W. C. Lucy, Pres.; H. E. Jones, Secy.

Tex., San Angelo—Automobiles.—Buck-Cox Auto Agency Co., capital \$10,000, inceptd. by Walter Buck, K. B. Cox and L. B. Cox.

W. Va., Huntington—Garage.—Packard-Columbus Motor Co., 830 Sixth Ave., will erect building.

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RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ky., Louisville—Louisville & Nashville R. R., W. H. Courtenay, Chief Engr., will rebuild wheel and axle shop reported burned.

Va., Newport News—Chesapeake & Ohio Ry., F. I. Cabell, Ch. Engr., Richmond, will build storage plant for 200,000 tons coal; arranged for extension track and trestle for increase to 300,000 tons; install machinery for daily loading out; capacity 6000 tons; planned for increase to 12,000 tons.

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ROAD AND STREET WORK

Ark., Batesville—North Arkansas Highway Dist. No. 2, E. C. Parsons, Chmn., Batesville; K. W. Rector, Secy., Melbourne, Ark., and D. P. Morrow, Treas., Salem, Ark., advise Manufacturers Record: District embraces 6-mi. strip from Batesville (Independence County) to Mammoth Springs, through Izard and Fulton counties; survey made and a graded road approved by the 3 counties; 80 mi.; estimated cost, with culverts, \$140,000; bonds to be sold for one-half cost of construction; balance borne by State Highway Com'n. and United States Govern-

ment; may advertise construction bids about July 1. (Lately noted.)

Ark., Hardy—Sharp County, Road Dist. No. 1, issued \$45,000 bonds to construct roads. Address County Commrs.

Ark., Jonesboro—Craighead County, Lake City, Nettleton and Bay Road Improvement Dist. No. 1, E. E. Randolph, Secy. Commrs., Gregg Bldg., Jonesboro, will grade and pave 24.86 mi. of road with broken stone paving (macadam) with bituminous surface treatment; also construct drainage, culverts and steel stringer bridges; excavation 167,000 cu. yds.; pavement 249,755 sq. yds.; asphaltic oil 189,750 gals.; concrete culverts and bridge abutments 1149 cu. yds.; steel I-beams 101,540 lbs.; Dist. Commrs. receive bids until May 24; Klyce & Kackley, Engrs., 505 Fourth and First Bank Bldg., Nashville, and Berger Bldg., Jonesboro; lately noted as having plans for construction of bituminous macadam road from Lake City to Bay, 26 mi., cost \$303,777. (See Machinery Wanted—Road Construction.)

Ark., Osceola—Mississippi County, Little River Road Improvement Dist., A. S. Rogers, Secy., will construct 35 mi. bituminous macadam road; \$275,000 (bonds sold) available; date of opening bids not set; Pride & Fairley, Engrs., Osceola. (County lately noted as having plans for graded earth road.)

Fla., Pensacola—Escambia County Commissioners opened bids to construct road and culvert; C. H. Turner Co., 30 E. Garden St., Pensacola, is lowest bidder at \$42,594.

Ga., Statesboro—City will pave streets with asphalt; \$30,000 bonds authorized; J. B. McCrary Co., Engr., Atlanta, Ga.

Ky., La Grange—Oldham County Fiscal Court will construct 9 mi. water-bound macadam road; open bids May 16; \$20,000 available; R. P. Neal, Engr., La Grange. (See Machinery Wanted—Road Construction.)

Ky., Louisville—City let contracts totaling \$45,239.95 for street paving; Bickel Asphalt Paving Co., at \$9330 and \$6435.75, respectively, to pave Broadway from 9th to 10th St. and Fehr Ave. from Clay to Shelby St.; Louisville Asphalt Co., at \$24,484.29, Jefferson St. from 4th to 6th St.; all with asphalt; city also let contract at \$4900 to pave 60 ft. of Green St. between 8th and 9th Sts. with brick.

Md., Baltimore—City let contract P. T. Cox Contracting Co., 154 Nassau St., New York, at \$198,000 to grade and curb 3 blocks of St. Paul and Courtland Sts., from Lexington to Franklin Sts.; 1200 ft. long; 20 ft. wide; 18,000 cu. yds. grading; 2540 lin. ft. armored concrete curbing and circles; 450 lin. ft. 8-in. border curbing for parking and 3200 ft. 1½-in. cement sidewalk.

Miss., Ellisville—City voted May 7 on \$3000 bonds to pave streets. H. P. Gough, City Clerk.

Mo., Kansas City—City let contract P. F. Gray Construction Co., 2517 E. 10th St., to pave Brooklyn Ave., from Linwood Blvd. to 37th Sts., asphalt; W. Harte, 2413 E. 19th St., Colorado Ave., from Budd Park Esplanade to Smart St., and Devner St., from Independence to 8th Sts., concrete; J. E. Welsh, 1122 E. Gillham Road, Forest Ave., from 53d to 55th Sts.; D. T. Bronsahar, 3233 Karnes St., Salda Ave., from Oakley to Eastern Sts.

Okla., Fort Sill—Government let contract R. E. Brownell of Lawton to construct 2-mi. concrete road, 24 ft. wide, from military reservation to Fort Sill. (Lately noted inviting bids.)

S. C., Gaffney—Cherokee County Highway Com'n., W. E. Peeler, Secy., let contract W. L. Gregory & Co. of Virginia, Va., to construct 12 mi. of road from Gaffney; cost about \$30,000; N. C. Hughes, Jr., Engr., Gaffney. (Lately noted inviting bids.)

Tenn., Bristol—City will pave with brick State, Shelby, Fifth and Sixth Sts.; S. G. Keller, Commr.

Tenn., Centerville—Hickman County Commrs. rejected bids for grading 100 mi. of road, involving 500,000 cu. yds. excavation, and for drainage structures; cost \$175,000; T. C. McEwen, County Engr. (Noted in Meh. as inviting bids.)

Tenn., Oneida—City will vote June 1 on \$20,000 bonds for street improvements. Address The Mayor.

Va., Newport News—City, F. E. Pearce, City Engr., contemplates street paving.

Va., Prince George—State Highway Com'n., G. P. Coleman, Commr., Richmond, will construct 4-ft. concrete shoulders to 14 mi. of concrete road between Petersburg and Lakemont, known as Hopewell Road; bids until May 15. (See Machinery Wanted—Concrete Road Work.)

Va., Winchester.—City will appropriate about \$2500 toward construction of road from Winchester through Clarke County, via Boyce and Millwood; this is section of Highway to be built by Federal and State Governments from Washington through Fairfax, Loudoun, Fauquier, Clarke and Frederick County to Winchester, where it will connect with Shenandoah Valley pike. Address The Mayor.

W. Va., Clarksburg.—City will pave South Chestnut St. Address The Mayor.

W. Va., Morgantown.—Monongalia County let contract Thoney Pietro, Morgantown, to construct 4700 ft. Deckers Creek Road, fill of earth and stone with 12-in. gravel top, covered with cinders or slag; cost \$10,000.

SEWER CONSTRUCTION

Ky., Shelbyville.—Sewerage Comsn., Camden W. Ballard, Clerk, will construct 15,000 ft. 6 and 8-in. sanitary sewers and a sedimentation tank; bids until May 29; Chas. E. Collins, Const. Engr., Drexel Bldg., Philadelphia, Pa. (See Machinery Wanted—Sewer Construction.)

Mo., Dundalk, P. O. at St. Helena.—Dundalk Sewer Co., capital \$200,000, inceptd. by Harold Schudt, Wm. H. Price, Jr., and Jesse H. Bowen, all of Senames, Bowen & Semmes, 25-28 Equitable Bldg., Baltimore. (Lately incorrectly noted as Dundalk Water Co.)

Miss., Greenville.—City will construct sanitary sewer extensions; 9000 lin. ft. 8-in. sewers with manholes, castings, cast-iron pipe, etc.; W. F. B. Haynsworth, City Engr., receives bids until May 14; H. C. Harvley, Mayor. (See Machinery Wanted—Sewer Construction.)

Okla., Geary.—City voted \$40,000 bonds to construct sewers. Address The Mayor.

Okla., Jennings.—City is reported to vote on \$20,000 bonds to construct sewers. Address The Mayor.

Okla., Tulsa.—City will construct sanitary sewer system for Sewer Dist. Nos. 15 and 130; Frank Newkirk, City Auditor, receives bids until May 13. (See Machinery Wanted—Sewer Construction.)

Tex., Abilene.—State Epileptic Colony, T. B. Bass, Supt., will construct sanitary sewerage-disposal plant and irrigation work; bids opened May 3.

Tex., Austin.—City will vote on \$100,000 bonds for constructing sewerage-disposal plant. M. C. Welborn, City Engr.

Va., Newport News.—City let contract to Noland-Clifford Co., Newport News, for 8-in. and 10-in. sewer pipe for cuts 3½ to 6 ft.; cost \$3500; F. E. Pearce, City Engr.; bids lately noted; contemplates additional sewer construction.

SHIPBUILDING PLANTS

Fla., Pinellas Park—Concrete Ships.—Adamant Brick Co. (H. G. Gilbert and others) plans to construct several concrete ships to demonstrate cementone, which it will manufacture. (See Concrete and Cement Plants.)

Ga., Brunswick—Steel Steamships.—Strachan Shipbuilding Co., F. D. M. Strachan, Pres., Brunswick, Savannah, Ga., and Charleston, S. C., contemplates building \$1,000,000 shipyard for steel vessels; considering site adjoining Atlanta, Birmingham & Atlantic Ry.; construct 10,000-ton steel steamships; build marine shipways for future extension to hold 20,000-ton vessels; probably invest \$500,000 to build dwellings and provide public utilities for industrial city of shipyard employees.

Ga., Savannah—Marine Railway.—Federal Marine Railway Co., capital \$200,000, inceptd. by R. S. Salas, H. Hodgson and T. M. Cunningham, Jr.; operate marine railway to be built by Emergency Fleet Corp., Reid Whitford, Supvr. Engr., Washington, D. C.; railway 1000 ft. long; complete equipment for vessels up to 3500 tons; let construction contract to National Shipbuilding & Dry Dock Co.; site at National plant on Savannah River.

La., New Orleans—Steel Steamships.—The Foundation Co., Woolworth Bldg., New York, will build \$1,250,000 plant to construct steel steamships of new unsinkable type; has site on industrial canal; build 4200-ton vessels; has French Government contract for 5 of these ships; employ 1500 men in shipyard. (Lately noted to build shipyard.)

N. C., Wilmington—Wooden Ships.—Wilmington Wood Ship Construction Co. organized; succeeds Cushman & McKown; will enlarge and improve shipyard for building wooden vessels.

Tex., Beaumont—Assembling Plant.—Emergency Fleet Corp., Wm. M. Hind, Installa-

tion Supt., will establish \$500,000 assembling plant to equip 52 wooden ships under construction in Fifth Dist.; 2500-ton ships.

TELEPHONE SYSTEMS

Fla., Key West.—Bell Telephone Co. will erect 2-story fireproof building; cost, including equipment, \$200,000.

Tenn., Clarksville.—Christian-Todd Telephone Co. will improve system.

TEXTILE MILLS

Ga., Dalton.—Dalton Hosiery Mills let contract Park-Grimes Co., Chattanooga, Tenn., to erect hosiery-mill building; 3 stories; 60x120 ft.; brick and concrete; cost \$16,000; install machinery to double daily output of 600 dozen pairs hose; establish mill village for operatives; 10-acre site. (Lately noted as having adopted plans.)

N. C., Burlington.—Hosiery.—Graham Hosiery Mills, authorized capital \$50,000, inceptd. by J. S. Frost, J. E. Black and Dave De Moss.

N. C., Forest City—Dyehouse.—Florence Mills are reported as planning to enlarge dyehouse to provide facilities for dyeing its own product and output of yarn mill of Alexander Mfg. Co. lately noted organized.

N. C., Kings Mountain—Cotton Products.—Mason Cotton Mills Co. advises Manufacturers Record: Capital stock \$125,000; J. C. Mason, Pres.-Treas.; C. B. Armstrong, V. P.; A. E. Cline, Secy.; succeed Klotho Mills; no additions contemplated at present. (In April, noted inceptd., etc.; acquiring Klotho Mills, 7000 spindles.)

N. C., Wilmington—Hosiery.—People's Hosiery Mill, E. Fred Banck, Pres., will erect 50x150-ft. 4-story brick building; cost \$50,000; Engrs.—Archts., Rhodes & Underwood; install machinery; daily capacity 1000 (or more) doz. pairs hose. (In March noted organized, \$200,000 capital, with equipment purchased, and to build addition for dyeing plant.)

Okla., Oklahoma City—Hosiery.—Chickasaw Hosiery Mills, T. E. Cullen, Secy.-Treas., 707 Colcord Bldg., has final plans and specifications; 103x57-ft. main building; 60x40-ft. dyehouse; brick and mill construction; cost \$30,000; erect by day labor; install 80 to 100 knitting machines, costing \$30,000; also 150 H. P. steam and electric power plant and dyeing machinery; electric power drive; daily capacity 350 to 400 doz. prs. whole and half cotton and lisle hose; W. H. Sears, Archt., Chattanooga, Tenn. Lately noted accepting plans and specifications, etc.; previously reported organized with \$200,000 capital. (See Machinery Wanted—Dyeing Machinery; Drying Machinery.)

Tenn., Murfreesboro—Hosiery.—Sunshine Hosiery Mills Co., Chattanooga, Tenn., will establish plant; leased building; purchased 40 knitting machines and power equipment.

WATER-WORKS

Ala., Headland.—City voted \$10,000 bonds to improve water-works and electric-light plant. Address The Mayor.

La., Gueydan.—City, M. I. Ramsey, Mayor, will expend \$20,000 on water works, \$5,000 for light plant, and \$10,000 on ice plant; acquires established water and light plants; construct ice plant of 10 tons capacity; the 3 plants to be housed in one building; may use old building; date of opening construction bids not set; water works plans include 6-in. deep well, 60,000-gal. tank, 100-ft. elevation; pumps; crude oil engine; mains; Engr., J. B. McCarty Co., Atlanta, Ga. (City lately noted voting \$15,000 bonds for water works and electric-light and ice plants.)

Mo., Richmond.—City voted \$32,000 bonds to improve water works. Address The Mayor.

N. C., Charlotte.—City will install centrifugal pumping units for water-works; electric power; cost \$8000 to \$10,000; invites bids; contract to be let as soon as reasonable time is allowed for filing of proposals; Anderson & Christie, Const. Engr., Charlotte; W. E. Vest, Supt. Water-works. Lately noted planning improvements and extensions costing \$175,000. (See Machinery Wanted—Pumping Equipment.)

Okla., Jennings.—City is reported to vote on \$30,000 bonds for water-works. Address The Mayor.

Okla., Quilton.—City voted \$98,000 bonds to improve water-works. Address The Mayor.

Tex., Fort Worth.—City will construct 10-in. water main from Lee Ave. to Biddison St.; require 1400 ft. of pipe. F. J. Von Zuben, City Engr.

WOODWORKING PLANTS

Ark., Pine Bluff—Woodworking.—H. J. Burkhardt is reported as contemplating establishment of woodworking plant to cost \$250,000.

Ga., Rome—Boxes.—Georgia Box & Mfg. Co., capital \$10,000, inceptd. by W. N. Griffin, Geo. T. Watts and J. P. Glover.

Miss., Phoenix—Spokes, etc.—Tusclometa Spoke Co. (D. P. Otts and C. E. Mann), Goodman, Miss., will build plant to manufacture automobile, wagon and carriage spokes, etc.

Miss., Sattaria—Spokes, etc.—Tusclometa Spoke Co. (D. P. Otts and C. E. Mann), Goodman, Miss., will build plant to manufacture automobile, wagon and carriage spokes, etc.

N. C., Walnut Cove—Box Shooks.—Carolina Lumber Co. organized by A. W. Preston, Paris Bros. and W. H. Gibson, all of Belew Creek and Pine Hall, N. C.; leased building and machinery; specialize in manufacture of box shooks.

Tenn., Memphis—Hoops.—Tennessee Hoop Co. increased capital from \$100,000 to \$200,000.

Tex., Orange—Spars.—Columbia Spar Co. of Portland, Ore., will build plant to manufacture spars for ships; supply shipyards at Orange, Beaumont, Houston and other points; erect building 36x130 ft.; has site.

Tex., Texarkana—Handles.—Collins Gaines, Texarkana National Bank Bldg., interested in proposed installation of machinery to manufacture broom and mop handles, etc. (See Machinery Wanted—Handle Machinery.)

FIRE DAMAGE

Fla., Brooksville.—Varnada Hotel, owned by L. B. Varn; loss \$40,000; Mrs. T. D. Cappelmann's millinery store.

Ga., Clarksville.—Residence of Mrs. E. P. West, Atlanta; loss \$6000.

Ga., Gadsden.—Stonewall Cox's residence in East Gadsden, owned by W. T. Cox.

Ga., Coolidge.—W. A. Jones, Jr.'s residence.

Ga., Lumpkin.—Mrs. John T. Patterson's residence.

Ga., Milledgeville.—Milledgeville Cotton Oil Mill; loss \$250,000.

Ga., Stilesboro.—J. M. Conyers' barn; loss \$5000 to \$7000.

Ky., Louisville.—Louisville Iron & Steel Co.'s main bldg.; Louisville & Nashville R. R.'s wheel and axle shops; total loss, \$225,000; W. H. Courtenay of Louisville, is Ch. Engr. of railroad.

Ky., Paducah.—Paducah Grain & Elevator Co.'s plant; loss \$8000 to \$10,000.

Ky., Scottsville.—Scottsville Hotel, owned by O. S. Bryant.

La., Alexandria.—Knights of Pythias Bldg., owned by Gus Gehr.

Mo., Berwyn.—Sanford & Bryant's store; McNamie Bros.' store; Knights of Pythias Hall; Geo. Bryant's carpenter shop; Mrs. Fannie Giddings' residence; loss \$15,000.

Miss., Leakesville.—Bear Creek Lumber Co.'s plant; loss \$100,000.

Mo., Poplar Bluff.—Matthews Co.'s cotton gin; loss \$3500.

N. C., Wilmington.—Farris Bakery; loss \$4000.

N. C., Wilson.—J. G. Roney's barn; loss \$3000.

Tenn., Buena Vista.—Mrs. J. W. McMillin's residence.

N. C., China Grove.—James Adams' residence near China Grove.

Tenn., Chattanooga.—Agricultural building at Warner Park, used as skating rink; loss \$8000 to \$10,000; Phil Shugart, Supt. of Parks.

Tenn., Elizabethton.—Geo. W. Emmert's dwelling.

Tenn., Lewisburg.—West Thompson's residence on Farmville Road; loss \$3000.

Tenn., Lenoir City.—Dr. J. T. Leeper's barn; loss \$3000.

Tenn., Memphis.—J. W. Canada's country residence on Holly Ford Rd.; loss \$10,000.

Tenn., Memphis.—John C. Dix Son & Co.'s automobile repair shop at 235-39 Poplar Ave.; loss on building \$25,000.

Tenn., Winchester.—Jas. T. Huffman's residence; loss \$2500.

Tex., Benavides.—Puigh Building, containing postoffice, etc.

Tex., Gorce.—Business buildings, owned by E. W. Hutchins, R. Black and J. T. Lawson; loss \$12,000.

Tex., Hermleigh.—A. E. Reed's building; Cleve Patterson's drug store; E. J. Ely's hardware store; A. W. Mobley's barber shop.

Tex., Paris.—Ed Judge's residence.

Va., Evingson.—Dr. J. Sinkler Irvine's residence; loss \$10,000.

W. Va., Fayette.—Boyd Wright's residence.

W. Va., Marlinton.—C. A. Yeager's residence.

DAMAGED BY STORM

Ark., Milner.—A. J. Kelly's residence.

Ark., McNeil.—Louisiana & Northwestern R. R. Co.'s passenger station, W. Hood, Ch. Engr.; V. Grimaldi's store; Floyd Whaley's garage; W. O. W. and A. F. and A. M. lodge hall.

Tex., Aubrey.—Aubrey School; Mr. Edwards, Denton County Supt., Denton, Tex.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Miami.—Wm. Brickell is having plans prepared by August Geiger, Miami, for apartment-house; 3 stories.

Fla., Orlando.—H. S. Murray will erect apartment-house.

Fla., St. Petersburg.—Mrs. Jennie Barrs has plans by W. S. Shull, St. Petersburg, for apartment-house; 6 apartments of 2 rooms and bath.

Ga., Atlanta.—J. H. Beckman will erect apartment-house; brick veneer; cost \$9500.

Ga., Atlanta.—Mrs. Anna Robinson will erect apartment-house; brick; 4 suites; 16 rooms; cost \$16,000.

Ga., Atlanta.—W. J. Langston will erect brick apartment-house; cost \$9000.

Mo., Baltimore.—Newfield Building & Loan Corp., Isaac Shapiro, Pres., 1035 N. Eutaw St., purchased dwelling, 1037 N. Eutaw St. and will remodel for apartments.

Mo., St. Louis.—Lucas Estate will repair store and tenement. (See Stores.)

Mo., St. Louis.—H. L. Schaeffer will erect 2-story tenements, 3726-36 Wisconsin St.; cost \$15,000.

Mo., St. Louis.—A. D. Gates Construction Co. will erect 4-story tenement; cost \$70,000.

Okla., Tulsa.—Employees Realty Co. will erect 2-story apartment-house on E. 5th St.; cost \$23,000.

Tex., Houston.—P. K. Ewing will erect apartment-house; 3 stories; brick; cost \$22,900.

Va., Richmond.—Virginia Realty & Construction Co., 1422 W. Cary St., will erect apartment-house; 42x68 ft.; 3 stories; brick; slag or tin roof; joist and wood floors; cost \$27,000; hot-water heat, \$2650; electric lights, \$800; plans and construction by owner. (Lately noted.)

ASSOCIATION AND FRATERNAL

Ala., Florence.—Y. M. C. A. plans to erect \$100,000 building.

Ga., Fort Oglethorpe.—National War Work Council, Y. M. C. A., New York, will erect association building at detention camp; F-2 type.

Tex., Waco.—Knights of Columbus will erect building in base hospital section of Camp MacArthur.

BANK AND OFFICE

Fla., Miami.—Frederick H. Rand, Jr., will erect 3-story concrete business and office building at Ave. C and 10th St. (See Stores.)

Ga., Atlanta.—S. M. Richards, Mgr., has permit to erect office building; brick veneer and stucco; cost \$4500.

Ga., Macon.—Fourth National Bank, B. C. Dunlap, Cashier, has plans by Hupp & Shelverton, Macon, for remodeling basement of building for savings department; lobby in tile; marble fixtures; construct 2 entrances; also remodel interior of main building; cost \$19,000; bids opened May 8. (Lately noted.)

La., Sicily Island.—Sicily State Bank organized with \$15,000 capital; W. S. Peck, Pres.; T. J. Chisolm, V.-P.; Fred. Falkenhömer, Cash.; will erect building.

Mo., Baltimore.—Wright-Gibson Coal Co., Pittsburgh, Pa., will erect stables, storage structures, office building, etc. (See Miscellaneous.)

Mo., Higginsville.—Farmers' Bank is receiving bids through Shepard, Farrar & Wiser, Architects, 122 R. A. Long Bldg., Kansas City, Mo., for bank building; 2 stories; 50x70 ft.; cost about \$50,000. (Lately noted.)

Mo., St. Louis.—Liggett & Myers Tobacco Co. will erect 350-ft. annex to office building for advertising department.

Tenn., Nashville.—Nashville, Chattanooga & St. Louis R. R., H. McDonald, Ch. Engr., Nashville, will erect 2-story brick addition to office building. (See Railway Stations, Sheds, etc.)

Tex., Fort Worth.—Texas State Bank, B. B. Samuels, V.-P., is having plans prepared by Sanguinet & Staats, First National Bank Bldg., Fort Worth, for 2 additional stories to building for offices; brick and terra-cotta exterior; reinforced concrete interior; 2 high-speed elevators; stairways and elevators in fireproof hatches.

Tex., Houston.—South Texas Commercial Bank will remodel, install marble partitions, etc.; cost \$4000.

Va., Laurel Fork.—Laurel Fork Bank organized with \$20,000 capital; Walter Hyton, Pres.; Meadows of Dan, Va.; J. E. Bowman, Cashier-Elect, Laurel Fork; will erect bank building; 26x36 ft.; brick; galvanized roofing; cost or details not determined. (See Machinery Wanted—Bank Fixtures; Safe; Vault.)

W. Va., Charleston.—Dime and Dollar Bank will erect building; cost \$8000.

CHURCHES

Ala., Tusculumbia.—Methodist Church receives bids until May 15 to erect parsonage; plans and specifications at office T. L. Brodie, Architect, Jefferson County Bank Bldg., Birmingham, and S. T. Slaton, Tusculumbia.

Ark., Atkins.—Baptist Church plans to erect building. Address The Pastor.

Ark., Fort Smith.—Bishop J. B. Fairview plans to erect Catholic Church in Fairview Addition.

Ark., Gould.—Methodist Church organized; Rev. M. C. Barnett, Pastor, Star City, Ark.; will erect building; Dr. C. McLendon and others Bldg. Committee.

Fla., Miami.—Riverside Methodist Church, Rev. W. G. Fletcher, Pastor, will erect building; stone.

Fla., Pensacola.—Rev. J. A. Ansley, Pastor, First Baptist Church, is interested in erection of building in Maxent tract.

Ky., Hickman.—Christian Church will erect \$15,000 structure; construction under supervision of Richard Clappitt, Richmond, Ind.

Ky., Greenville.—Baptist Church will erect \$30,000 structure. Address The Pastor.

Ky., Madisonville.—St. Mary's Episcopal Church will erect parish house. Address The Rector.

La., Alexandria.—Emanuel Baptist Church, Rev. D. F. Lawrence, Pastor, receives bids until May 15 to erect 3-story brick Sunday-school building; plans and specifications at office Favrot & Livaudais, Ltd., Architects, Title Guarantee Bldg., New Orleans, and J. W. Bolton, Chrmn. Bldg. Committee. (Lately noted.)

Mo., Baltimore.—University Baptist Church, Willoughby M. McCormick, Chrmn. Bldg. Committee, Pratt and Concord Sts., indefinitely deferred erection of \$140,000 church and \$35,000 Sunday School building; John Russell Pipe, Archt., 527 Fifth Ave., New York. (Lately noted.)

Mo., St. Louis.—Bishop Tuttle Church will erect addition to building; cost \$4800. Address The Rector.

Mo., St. Louis.—B'Nai Amoona Congregation is having plans prepared by A. Meyers, 7th and Locust Sts., St. Louis, to erect building at Vernon and Academy Aves.; cost \$50,000.

Okla., Chickasha.—Methodist Church has plans by W. A. Rayfield & Co., Birmingham, Ala., for building; 50x70 ft.; ordinary construction; metal shingle roof; pine floors; hot-air heat; electric lights; cost \$8000; Rev. B. F. Rooks, Pastor.

Okla., Sallisaw.—First Presbyterian Church, U. S. A., Rev. J. S. Wilbanks, Pastor, will probably let contract to H. P. Culp, Muskogee, Okla., to erect building; 56x80 ft.; basement 48x70 ft.; concrete and

brick; galvanized iron and shingle roof; basement floor, cement; auditorium floor, wood; gas stoves for present; electric lights; cost \$15,000; John C. Fulton & Son, Architects, Uniontown, Pa. Address W. A. Matthews, Sallisaw. (Lately noted.)

Okla., Tulsa.—Methodist Episcopal Church, South, will erect building on N. Phoenix St.; frame; cost \$6876. Address The Pastor.

S. C., Lexington.—St. Stephens Lutheran Church, Rev. W. H. Riser, Pastor, will build parsonage; 40x60 ft.; brick; slate or composition roof; electric lights; cost \$4000; construction begins in 60 days. (Lately noted.)

Tex., Mesquite.—Rev. Edgar Hubbard, Pastor, receives bids until May 9 to erect brick and tile church building; plans and specifications at office T. J. Galbraith, Archt., Slaughter Bldg., Dallas.

Tex., Orange.—West Orange Baptist Church will erect \$10,000 structure. Address The Pastor.

Tex., Port Arthur.—Presbyterian Church will erect annex to building. Address The Pastor.

Va., Norfolk.—Christ Church has plans by Frank R. Watson, 1211 Walnut St., Philadelphia, for lately noted parish house at Olney Road and Stockley Gardens; 50x80 ft.; fireproof; slate roof on fireproofing; reinforced concrete floor construction; steam heat; electric lights; cement sidewalk; dumb waiter; no general contractor; construction begun. (See Machinery Wanted—Structural Steel; Cut Stone.)

CITY AND COUNTY

Ark., Hope.—City Hall, etc.—Mayor appointed committee with S. H. Briant, Chrmn., to investigate plans, estimates, etc., for erection of auditorium, city hall, armory, etc.; cost about \$75,000; Rotary Club, Lee Giles, Secy., is also interested.

Ark., Marianna.—Jail.—Lee County, J. A. Plummer, Judge, rejected all bids to erect lately noted jail; reinforced concrete and brick; Scott's old-style standing-seam roofing; reinforced concrete floors; cost \$12,000; Estes W. Mann, Archt., Bank of Marianna Bldg., Marianna, or Judge Plummer may be addressed. (See Machinery Wanted—Locking Devices; Steel Bunks; Window Guards (Steel); Steel (Reinforcing).)

Ga., Atlanta.—Stable.—City will erect stable for sanitary department; brick; cost \$14,000; H. L. Collier, Chief of Construction.

Okla., Ardmore.—Barn, etc.—City voted \$20,000 bonds to acquire site, erect and equip barn and storage house; definite plans not decided; W. R. Roberts, Mayor. (Lately noted.)

Tenn., Chattanooga.—Agricultural Building. City will erect agricultural building at Warner Park to replace structure noted damaged by fire at loss of \$8000 to \$10,000; Phil. Shugart, Supt. of Parks.

Tenn., Nashville.—Fire Hall.—City, Wm. Gupton, Mayor, has plans by Marr & Holman, 701 Stahlman Bldg., Nashville, for Waverly-Belmont fire hall; colonial-residence style; 2 stories and basement; portico, with heavy fluted columns in front and balconies above; upper floor for dormitories and lockers for firemen; shower baths; first story interior walls faced with white enamel brick; exterior walls red matt brick; white stone trim; brick composition roof; cost about \$55,000; bids received until May 7. (Lately noted.)

Tex., Pecos.—City Hall and Fire Station.—City acquired building at Oak and 4th Sts. and will remodel and erect addition for city hall and fire station; latter, concrete; 25x60 ft.; tar and gravel roof; concrete floors; shower baths; cost \$2500. (Lately noted.)

DWELLINGS

Ala., Tusculumbia.—W. W. Giles will erect 10-room residence.

Ark., Little Rock.—B. A. Holland will erect \$3500 residence.

Ark., Little Rock.—L. Lindsey will erect residence; cost \$2200.

Ark., Little Rock.—H. E. Heiden, 2017 W. Sixth St., will erect dwelling at 207 Pulaski St.; 22x56 ft.; brick veneer; asphalt slate roof; hardwood floors; construction begins May 10. (Lately noted.)

Ark., Little Rock.—T. E. Campbell will remodel residence; cost \$5500.

D. C., Washington.—Harry A. Kite, 1338 G St. N. W., will erect dwellings at 1030-34 Evans St. N. E.; 30x30 ft.; frame; hot-water heat; plans and construction by owner. (Lately noted.)

Fla., Jacksonville.—T. E. Floyd will expend \$2500 to remodel frame dwelling.

Fla., Miami.—E. P. Davis will erect residence; cost \$2000.

Fla., Miami.—D. A. Dorsey acquired 30-acre site south of Miami Beach and plans to form company to develop for resort; erect cottages, etc. (See Miscellaneous.)

Fla., Miami.—Robt. J. Jennings, Elmira, N. Y., is reported to erect residence.

Fla., Miami.—C. F. Goodman will erect residence; cost \$2500.

Fla., St. Petersburg.—Jas. W. Booth will erect villa on Lakeview Ave.

Ga., Atlanta.—H. B. Schumpert will erect residence; brick; cost \$4650.

Ga., Atlanta.—Dr. C. D. Ayer will erect residence on Pace Ferry Road.

Ga., Atlanta.—Dr. Jas. M. Brawner has plans by Battle & Barill, Grant Bldg., Atlanta, for residence; 2 stories; brick veneer or hollow tile; slate roof; steam heat.

Ga., Brunswick.—Strachan Shipbuilding Co., F. D. M. Strachan, Pres., Brunswick, Savannah, Ga., and Charleston, S. C., will probably expend \$50,000 to build dwellings, etc., for industrial city for shipyard employees.

Ga., Rome.—T. B. Owens contemplates erecting residence.

Ga., Savannah.—Puritan Dairy Farms, H. Rosenheim, Pres., Treas., will erect farm residence, etc. (See Miscellaneous Structures.)

Ga., Savannah.—W. F. Cardinal will erect bungalow.

La., New Orleans.—Dr. E. A. Jurgelevac will remodel residence; cost \$6000.

La., New Orleans.—E. Greenlaw Realty Co. will erect 2 dwellings on Uppering St.; cost \$3000.

La., New Orleans.—J. J. Lyons and H. H. Bain will erect 2 frame dwellings; cost \$3750 each.

La., Shreveport.—Thos. A. Jordan has plans by W. A. Rayfield & Co., Birmingham, Ala., for bungalow; 36x42 ft.; ordinary construction; composition shingle roof; pine and oak floors; electric lights; cost \$2500; hot-air heat, \$350; bids opened about May 15. Address owner.

Mo., Catonsville.—John P. Collier purchased 9-room cottage on Wyndcrest Ave., and will improve.

Mo., Catonsville.—T. J. Hooper, Osborne Ave., purchased 14-room residence on Montrose Ave. and will remodel.

Mo., Dundalk.—Dundalk Company, Edw. H. Bouton, Pres., St. Helena, Md., will build 531 buildings (dwellings and about 10 boarding-houses) for employees of Bethlehem Steel Co.; cost, including some street work, grading, etc., about \$2,000,000; following contractors estimating: Jarrett-Chambers Co., 30 E. 42d St.; John Lowry, Jr., 8 W. 40th St.; Mark C. Tredennick, 331 Madison Ave., all of New York; H. D. Watts Co., 502 Garrett Bldg., Baltimore, Md.; date of opening bids not set; Edward L. Palmer, Jr., Archt., 513 N. Charles St., Baltimore, Md. (Previously noted.)

Mo., St. Louis.—Jos. A. Schaefer will erect 1-story dwelling; cost \$3200.

N. C., Greensboro.—Banks-Richardson Co. will erect \$4000 residence.

N. C., Greensboro.—John T. Hunt will erect two residences in Springdale Court; cost \$2500 each.

N. C., Winston-Salem.—J. G. Jerome will erect residence on Ardmore Ave.; C. Gilbert Humphreys, Archt., Winston, Salem.

Okla., Tulsa.—E. D. Fritts will erect dwelling; cost \$2500.

Okla., Tulsa.—Frances B. Ordway will erect dwelling; cost \$3000.

Okla., Tulsa.—L. W. Pittenger will erect \$2000 residence.

Okla., Tulsa.—W. A. Coleman will erect dwelling; cost \$5300.

Okla., Tulsa.—H. E. Hanna will erect \$2500 residence.

Okla., Tulsa.—Chas. D. Lash will erect residence; cost \$7000.

Okla., Tulsa.—Mrs. Dan Hagler will erect residence; cost \$2500.

Okla., Tulsa.—M. E. and Joe Baker will erect \$5000 addition to residence.

Okla., Tulsa.—O. L. Chancellor will erect residence; cost \$5000.

Okla., Tulsa.—P. A. Burhaus will erect residence; cost \$4000.

Okla., Tulsa.—Ray Slack will erect \$3000 dwelling.

Okla., Tulsa.—Wm. Hiner will erect 2 dwellings; cost \$5000 and \$10,000, respectively.

Okla., Tulsa.—W. G. Skelly will erect \$2000 dwelling.

Okla., Tulsa.—R. N. Bynum will erect \$7000 residence.

S. C., Greenville.—F. J. Davis will erect \$3000 residence.

S. C., Greenville.—Jas. I. West will erect dwelling; bungalow type; cost \$3500.

Tenn., Clarksville.—Ed. Alward will erect bungalow.

Tex., Cisco.—A. J. Olson will erect brick bungalow.

Tex., Houston.—P. Timpson will expend \$4000 to repair residence.

Tex., San Antonio.—H. A. Barsun will erect 5-room residence; cost \$2300.

Tex., San Antonio.—Laura Bourguin will erect 6-room residence; cost \$2400.

Tex., San Antonio.—D. R. Matthews will erect 5-room residence; cost \$2400.

Tex., San Antonio.—M. H. Wier will erect 5-room residence; cost \$2300.

Tex., San Antonio.—W. A. Bailey will erect eight 5-room residences on Wickes St., Mission St., Peck Ave. and Agarita Ave.; cost \$17,700.

Tex., San Antonio.—C. H. Meadows will erect 6-room dwelling; cost \$3000.

Tex., San Antonio.—F. G. Francis will erect dwelling; 5 rooms; cost \$2300.

Tex., San Antonio.—Fannie H. Robertson will rebuild 2 porches, S. Presa St.; cost \$3000.

Tex., San Antonio.—W. H. Kennon will erect 6-room dwelling; cost \$3000.

Tex., San Antonio.—E. Fricke will erect 5-room residence; cost \$2300.

Tex., San Antonio.—H. G. Engleman will erect 5-room residence; cost \$2500.

Tex., San Antonio.—L. A. Tucker will erect 8-room residence; cost \$5000.

Tex., San Antonio.—J. P. Mann will erect dwelling; 5 rooms; cost \$7000.

Tex., San Antonio.—W. A. Baily will erect 4-room dwelling on Peck Ave. and 6-room dwelling on Summit St.; cost \$5500.

Tex., San Antonio.—L. Fortune will erect dwelling; 5 rooms; cost \$2000.

Tex., San Antonio.—Jack Bridge will erect 4-room dwelling; cost \$2200.

Tex., Wichita Falls.—Madorie & Fields, 500 K. & K. Bldg., Wichita Falls, prepared plans for 2-story brick and tile residence; bids received until May 6.

Va., Norfolk.—David W. Godwin will erect frame dwelling; cost \$2700.

Va., Norfolk.—Mrs. Lella M. King will erect frame dwelling; cost \$2400.

Va., Norfolk.—John R. Riddick will erect dwelling and garage; frame; cost \$2200.

Va., Norfolk.—Wilson W. Vellines will erect \$3000 dwelling; frame.

Va., Portsmouth.—H. Bangel will erect 2-story store and dwelling. (See Stores.)

Va., Richmond.—Max E. Reuhrmund will erect dwelling on Moore St.; cost \$2800.

W. Va., Clarksburg.—C. C. Frum will erect residence on Church St.

W. Va., Clarksburg.—H. F. Modlin will erect residence.

W. Va., Clarksburg.—E. R. Finney will erect dwelling.

W. Va., Clarksburg.—Omar McClain will erect residence on W. Pike St.

W. Va., Clarksburg.—C. E. Prunty will erect 2 residences.

W. Va., Charleston.—W. F. Shawver will erect \$8000 residence at Fray & Rand Sts.

W. Va., Charleston.—W. T. Eisensmith will erect \$15,000 residence.

W. Va., Fairmont.—C. C. Jenkins will erect concrete back dwelling; 2 stories.

GOVERNMENT AND STATE

D. C., Anacostia.—Armory.—Bureau of Yards and Docks, Navy Department, Washington, receives bids until May 14 to erect armory; specification No. 2943; cost \$9000.

D. C., Anacostia.—Magazine.—Bureau of Yards and Docks, Navy Department, Washington, is having plans prepared for magazine building; specification No. 2954; cost \$2500.

D. C., Washington.—Hospital.—Department of Interior, S. G. Hopkins, Asst. Secy., opened bids to erect ward buildings, dining hall and kitchen for St. Elizabeth's Hospital; Oscarana Building Co., 101 Park Ave., New York, low bidder at \$156,700 for work complete with alternative of \$137,000. (See Hospitals.)

D. C., Washington.—Hospital.—Cantonment Division, War Department, Washington, D. C., will soon let contract to erect additions to Walter Reed Hospital. (See Hospitals.)

Fla., Pensacola.—Storehouse.—Bureau of Yards and Docks, Navy Department, Washington, D. C., opened bids to erect storehouse for dirigible equipment at Naval Air Station; Austin Company, 1313 H St. N. W., Washington, D. C., low bidder at \$29,850.

Ga., Fort Oglethorpe.—Association.—National War Work Council, Y. M. C. A., New York, will erect association building at detention camp; F-2 type. (See Association and Fraternal.)

Ga., Savannah.—Quarantine Station.—Treasury Dept., James A. Wetmore, Act. Supervising Archt., Washington, opens bids May 31 to construct 6 additional buildings, water tank and well house at Quarantine Station; drawings and specifications from custodian at station and Mr. Wetmore as above.

Mo., Jefferson City.—Hospital.—Cantonment Division, War Department, Washington, D. C., soon lets contract to erect addition to hospital.

S. C., Columbia.—School.—State Board of Charities and Correction, Albert S. Johnstone, Secy., will erect building for Industrial School; cost \$50,000; W. O. Ludlow, 101 Park Ave., New York, and George Lafaye, Columbia, will submit preliminary plans May 15. (See Schools.)

Tex., Waco.—Knights of Columbus Bldg.—Knights of Columbus will erect building in base hospital section of Camp MacArthur. (See Assn. and Frat.)

Va., Hampton Roads.—Naval Training Camp.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., receives bids until May 9 to construct extension to naval training camp; estimated cost \$800,000. Address Chief of Bureau, Washington.

Va., Newport News.—Emergency Hospital. Bureau of Yards and Docks, Navy Department, Washington, D. C., will erect emergency hospital. (See Hospitals.)

HOSPITALS, SANITARUMS, ETC.

D. C., Washington.—Cantonment Division, War Department, Washington, D. C., will soon let contract to erect additions to Walter Reed Hospital; cost \$750,000; cost plus basis. (Previously noted.)

D. C., Washington.—Department of Interior, S. G. Hopkins, Asst. Secy., opened bids to erect ward buildings, dining hall and kitchen for St. Elizabeth's Hospital; Osceola Building Co., 101 Park Ave., New York, low bidder at \$156,700 for work complete, with alternative of \$137,000. (Lately noted.)

Ga., Athens.—Improved Order of Samaritans will erect hospital; accommodate 100 beds; cost \$10,000; Dr. W. H. Harris is interested.

Ky., Mt. Sterling.—Chiles Hospital plans to erect 6-room ell and operating-room; brick; metal roof; wood and tile floors; other details not determined.

Md., Baltimore.—Johns Hopkins Hospital will erect addition to hospital on Monument St., near Wolfe; Archer & Allen, Archts., Central Savings Bank Bldg., receiving bids. (Previously noted.)

Md., Catonsville.—Board of Managers, Spring Grove State Hospital will complete psychopathic building; accommodate 200 beds. (Previously noted.)

Mo., Jefferson City.—Cantonment Division, War Department, Washington, D. C., soon lets contract to erect addition to hospital.

Okla., Tulsa.—Sunnyside Hospital is considering erection of 3-story addition to include nurses' training school, dormitories, restrooms, laboratory, consultation-room, etc.; 50x140 ft.; cost about \$75,000.

Tex., Arlington.—Berachah Home will erect receiving ward and hospital building; C. P. Sites, Archt., Southwestern Life Bldg., Dallas. (Lately noted.)

Va., Newport News.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will erect emergency hospital; specification No. 2918; cost \$50,000; bids received until May 6. (Lately noted.)

W. Va., Morgantown.—Monongalia County Commrs. receive bids about May 15 to erect infirmary; E. F. Jacobs, Archt., Fleming Bldg. (Previously noted.)

HOTELS

Fla., Merritt.—Frank J. Nevins, Titusville, Fla., is reported to erect fireproof hotel.

Fla., Miami.—John H. Havlin, Cincinnati, is having plans prepared by Gordon E. Mayor, Buena Vista, Fla., for converting 2d and 3d floors of Prout Bldg. into 35-room commercial hotel; office and lobby on 2d floor; 6-ft. stairway will extend to 3d floor; public shower on each floor; hot and cold

water in all rooms; also erect 1-story concrete warehouse in rear; 40x50 ft.

Fla., Miami.—D. A. Dorsey acquired 30-acre site south of Miami Beach and plans to form company to develop for resort; erect hotel, cottages, etc. (See Miscellaneous.)

Fla., Orlando.—J. W. Hurley, lately noted to erect hotel building, advises Manufacturers Record that he has purchased Osceola Hotel, but does not contemplate any building at this time.

Ga., Atlanta.—Jules Heymann and Sam Baron purchased Terminal Building of Augusta-Aiken Ry. & Electric Corp., and are considering enlarging and remodeling for hotel.

N. C., Greensboro.—Guilford Hotel will improve building; remodel interior, enlarge lobby, dining room, install several additional baths, refurnish number of rooms, install elevator, heating plant and new store fronts on W. Sycamore St.; cost \$40,000. (Previously noted.)

Tex., Beaumont.—W. H. and J. C. Verner and others contemplate erecting hotel. (See Tex., Fort Worth.)

Tex., Fort Worth.—W. H. and J. C. Verner and others contemplate organizing trust company to erect hotels in Fort Worth, Wichita Falls and Beaumont.

Tex., Orange.—Holland Hotel Co. will expend \$40,000 to improve hotel.

Tex., Wichita Falls.—W. H. and J. C. Verner and others contemplate erecting hotel. (See Tex., Fort Worth.)

MISCELLANEOUS

Fla., Miami.—Resort.—D. A. Dorsey acquired 30-acre site south of Miami Beach and plans to form company to develop for resort; plans include erection of hotel, bathing pavilion, cottages, etc.

Ga., Atlanta.—Home.—Arabian Home, R. J. Huff, Mgr., will erect building for helpless women and children of convicts; 70 to 80 rooms; stone; roofing not decided; wood floors; cost \$20,000; bids opened about Aug. 20; construction begins Sept. 15. (Lately noted.)

Ga., Savannah.—Barns.—Puritan Dairy Farms, H. Rosenheim, Prest.-Treas., will erect dairy barns, house and other buildings in connection with establishment of dairy farm on 150-acre site; brick and wood; cost \$15,000; construction begun.

Md., Baltimore.—Stables, etc.—Wright-Gibson Coal Co., Pittsburgh, Pa., will erect stables, garage, storage structures, office building, etc., as lately noted; cost \$75,000 to \$100,000. (See Coal Mines and Coke Ovens.)

Md., Bowie.—Clubhouse, etc.—Southern Maryland Agricultural Assn. will erect clubhouse; also 2 brick stables to replace structures previously noted damaged by fire; Richard Pending, Supt. of Bowie race track.

Miss., Biloxi.—Clubhouse.—Biloxi Golf Club, V. J. A. Tucci, Secy., P. O. Box 6, Biloxi, will establish golf club on 110-acre site; erect clubhouse, layout golf course, fence grounds, etc.; work under direction J. G. Cohoe and W. E. White; grounds and course laid off, staked and platted by J. L. Daray, Grand Rapids, Mich. (Lately noted.)

N. C., Charlotte.—Dance Hall and Clubhouse.—J. Latta will erect soldiers' club and dance hall; 40x36 ft. and 45x97 ft.; wood; brick foundation; tin roof on clubhouse; 3-ply Barrett roofing on dance hall; maple floors in clubhouse; pine floors in dance hall; electric lights; cost \$4500 and \$2100, respectively; hot-water heat, \$900; plans by Angus Conner, 1st Sig. R. C. A. S., Camp Green, Charlotte; work done by tradesmen picked from aviation section. Address Soldiers' Club of Charlotte. (Lately noted.)

Okla., Muskogee.—Fair.—Oklahoma Free State Fair will erect number of fair buildings; all wood except merchants' display building and grandstand; plans by C. W. Dawson, Muskogee, for merchants' display building call for brick structure; 80x150 ft.; 2 stories; concrete floors; plans by Henry Valter, Muskogee, for grandstand, call for concrete structure 80x300 ft.; concrete floors; cost about \$50,000; construction on both buildings probably begins June 1. Address Tams Bixby, Prest. (Lately noted.)

S. C., Florence.—Pavilion, etc.—H. F. Dargan and J. W. Ivey will develop 4-acre site for park; construct swimming pool; 50x100 ft. supplied with artesian water, well having flow of 35,000 gal. per hour; erect pavilion, 30 bathhouses, provide electric lights, etc.; cost \$5000.

Va., Norfolk.—Ballroom.—Mrs. Olga Long purchased Borough Club and will remodel

and improve for ballroom 4000 sq. ft., restaurant and grillroom.

RAILWAY STATIONS, SHEDS, ETC.

Tenn., Nashville.—Nashville, Chattanooga & St. Louis R. R., H. McDonald, Ch. Engr., Nashville, will erect 2-story brick addition to office building; cost \$16,500.

W. Va., Beckley.—Chesapeake & Ohio Ry. Co., F. I. Cabell, Chief Engr., Richmond, Va., will soon call for bids to erect depot; 2 stories; 25x50 ft. (Previously noted.)

SCHOOLS

Ark., Conway.—Hendrix College Trustees are having plans prepared by C. L. Thompson, Little Rock, to erect 100-room dormitory; brick, steel and concrete; cost \$100,000. (Lately noted.)

Ark., Manila.—School Board, W. W. Shaver, Prest., will erect school; J. E. Shane, Archt., Paragould, Ark.

Ark., Wilton.—School Board, M. T. Martin, Prest., will erect frame school.

D. C., Washington.—Board of Education receives bids in June to erect school addition; 2 stories; 67x90 ft.; cost \$90,000; Snowden Ashford, Archt., District Bldg., Washington.

Ky., Cynthia.—City voted \$65,000 bonds to erect 2 schools, one of which is to replace structure lately noted damaged by fire. Address The Mayor. (Lately noted.)

Ky., Daniel Boone.—Hopkins County Board of Education, Madisonville, Ky., lets contract May 13 to erect school near Daniel Boone; 24x36 ft.; frame; shingle roof; stores; cost \$1000. (See Ky., Madisonville.)

Ky., Madisonville.—Hopkins County Board of Education lets contracts May 13 to erect school near Daniel Boone; 24x36 ft.; one in Baugh's Dist. near Anton, 24x40 ft., and 2-room school 24x36 ft. at Nebo, Ky.; frame; shingle roof; wood floors; stores; cost of two former structures \$1000 each, latter \$2000. Address L. R. Ray, Madisonville.

Ky., Pembroke.—Pembroke Graded School Dist. will erect lately noted school building; 60x90 ft.; brick or brick veneer; Carey slate shingle roof; rift pine floors; steam heat; cost \$8000. Address R. L. Wells, Clerk. (See Machinery Wanted—Heating Plant.)

La., Port Allen.—W. H. Bres, Supt., Port Allen, receives bids until May 15 to erect public school building; plans and specifications at office Mr. Bres.

Md., Oakland.—Board of Education, Garrett County, R. E. Silger, Prest., receives bids until May 20 to erect 3-story addition and alter old courthouse for high school; plans and specifications at office Geo. F. Sansbury, Archt., Cumberland, Md.

Miss., Anguilla.—Anguilla Consolidated School Dist. has plans by N. W. Overstreet, Jackson, Miss., for school building; brick and wood construction; built-up roof; ordinary wood flooring; cost \$15,000; heating, \$2000; Delco lighting plant, \$500; bids opened about May 31. Address Board of Trustees, Anguilla. (Lately noted.)

Miss., Booneville.—City has plans by R. A. Heavener, Jackson, Tenn., for school; 60x117 ft.; ordinary construction; composition built-up shingle roof; steam heat; electric lights; cost \$30,000; bids opened May 7. (Lately noted.)

Miss., Boyle.—Boyle Consolidated School Dist. has plans by N. W. Overstreet, Jackson, Miss., for school; 90x54 ft.; brick and wood; flat built-up roof; ordinary wood floors; cost \$20,000; heating, \$2200; Delco lighting system, \$500; contract to be let about June 1. Address Board of Trustees, Boyle.

Miss., Columbia.—Trustees Mississippi Industrial and Training School receive bids until May 7 to erect 4 buildings; bids on buildings complete, with electrical wiring, plumbing and heating; separate bids on furniture, laundry, electric plant, fencing and equipment; plans and specifications at office L. C. Franklin, Prest., Clarksdale, Miss.; Prof. W. Jacobs, Supt., Arcade Hotel Bldg., Columbia, and Xavier A. Kramer, Archt., and Const. Engr., Magnolia, Miss. (Previously noted.)

Okla., Ardmore.—School Board will erect school building; 2 stories; J. A. Carroll is interested.

Okla., Bennington.—School Trustees will soon call election on bonds to erect school building.

Okla., Cleveland.—Board of Education is having plans prepared by S. S. Voigt for proposed high school; 2 stories; 55x116 ft.; cost about \$65,000.

Okla., Henryetta.—School Board, J. T. Hefly, Clerk, will erect gymnasium.

Okla., Krebs.—Krebs School Dist., T. P. Otterson, Prest. of School Board, voted \$17,000 high-school bonds. (Lately noted.)

Okla., Oklahoma City.—City is considering voting on \$600,000 school bonds. Address The Mayor.

S. C., Columbia.—State Board of Charities and Correction, Albert S. Johnstone, Secy., will erect Industrial School for Girls; unit cottage system; kitchen, dining-room, laundry, heating plant, etc., attached to each building; cost \$50,000; W. O. Ludlow, 101 Park Ave., New York, and George Lafaye, Columbia, will submit preliminary plans May 15. (Lately noted.)

S. C., Lancaster.—Lancaster School Dist. votes May 21 on \$85,000 bonds to erect brick school building in Lancaster cotton mill village, to enlarge central school and build additional school. (Previously noted.)

Tex., Aubrey.—Aubrey School Dist. will probably rebuild school; noted damaged by storm; Mr. Edwards, Denton County Supt., Denton, Tex.

Tex., Burk Burnett.—Burk Burnett School Dist. will erect 2-story brick school building; cost \$18,000; bids received until May 6; plans and specifications at office Chas. J. Pate, Archt., 507 K. K. Bldg., Wichita Falls, Tex.

Tex., Bryan.—City Commrs. will erect high school; brick and concrete; M. L. Waller & Co., Archts., Fort Worth.

Tex., Denton.—Board of Regents, College of Industrial Arts, J. H. Lowry, Prest., will erect 2-story frame cottage and brick garbage incinerator; Dennis R. Walsh, Archt., Austin; bids opened May 4.

Tex., Meridan.—Building Committee, H. C. Odle, Chmn., to erect college dormitory; stone, brick or concrete; plans prepared.

Tex., Vernon.—School Board, R. B. Sherrill, Secy., rejected all bids to erect addition to high school and will open new bids May 15; steam heat; electric lights; separate bids on plumbing, heating and wiring; plans and specifications at office Madorie & Field, K. & K. Bldg., Wichita Falls, Tex., or City Hall at Vernon. (Lately noted.)

W. Va., Masontown.—Board of Education has plans by S. W. Ford, Clarksburg, W. Va., for school; 2 stories and basement; about 90x90 ft.; brick and stone; Barrett built-up roofing; wood floors; hot-air heat; electric lights; day labor under foreman. (Lately noted.)

STORES

Ark., Conway.—J. W. Holt will erect store building; brick.

Ark., Warren.—Turner-Jones Grocery Co. will erect business building.

Fla., Miami.—Frederick H. Rand, Jr., will erect 3-story concrete business and office building at Ave. C and 10th St.

Ky., Louisville.—Levi Tuler Land Co. will expend \$8000 for alterations to building 319 W. Jefferson St.

Ky., Louisville.—Louisville Trust Co. will alter building at Preston and Market Sts.; cost \$5000.

Mo., St. Louis.—Lucas Estate will repair store and tenement; cost \$2400.

Mo., St. Louis.—Steiner Bros. will erect 1-story store building; cost \$9900.

N. C., Greensboro.—Guilford Hotel will improve building, including installing new store fronts; cost \$40,000. (See Hotels.)

N. C., Wilmington.—Belk-Williams Co. has plans by H. E. Bonitz, Wilmington, for improvements to interior of department store; cost \$10,000 to \$15,000.

N. C., Wilmington.—Einstein Bros. purchased building at Front and Grace Sts. and will erect addition to structure; 66x33 ft.; pressed brick and granite.

Okla., Tulsa.—D. O. Fuller will erect store building; brick; cost \$16,000.

Okla., Tulsa.—R. D. Standeart will erect addition to building at 16th and Rockford Sts.; cost \$17,000.

Tex., Houston.—W. McKinnon will expend \$4000 to remodel building at 912 Texas Ave.; cost \$4000.

Tex., Waco.—Frank Keton will erect building at 712 Austin Ave.; cost \$15,000.

Tex., Yonkum.—S. Edwards will erect 2-story brick business building.

Va., Norfolk.—Snyder, Inc., will expend \$3500 for interior alterations to building.

Va., Portsmouth.—H. Bangel will erect 2-story store and dwelling; frame; slate roof; cost \$2000.

W. Va., Huntington.—F. H. Richardson, 2017 Third Ave., indefinitely postponed erection of store building; brick; tile roof; cost \$50,000; plans by owner. (Previously noted.)

THEATERS

Fla., Jacksonville.—S. A. Lynch Enterprises, Inc., and J. W. Spratt have plans by R. A. Benjamin, Jacksonville, for theater building at Forsyth and Ocean Sts.; face brick with limestone or terra-cotta trim; glass and ornamental marquee; upholstered opera chairs in main auditorium and balcony; mechanical ventilating and heating apparatus; construction begins in 30 to 60 days. Architect wires Manufacturers Record: "Building fireproof construction; concrete skeleton frame and floors; brick and tile walls; cost \$100,000; site 95x105 ft. (R. A. Benjamin previously noted preparing plans for \$150,000 theater.)"

Tex., San Antonio.—M. L. Oppenheimer will remodel vaudeville theater; cost \$8000.

WAREHOUSES

Fla., Miami.—Roy C. Wright & Co. will erect warehouse; 1 story; reinforced concrete; cost \$4500.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ga., Atlanta.—H. M. Pearson let contract to Pearson & McDonald, Atlanta, to erect 3-story brick and tile apartment-house; cost \$25,000.

Ga., Atlanta.—Norman I. Miller let contract to Fulton County Home Builders, Atlanta, to erect apartment house; 3 stories; 17 suites; brick; cost \$40,000.

Tex., Houston.—Mrs. A. Stevens let contract to Cottage Construction Co., Houston, to erect two 2-story frame and stucco apartments; cost \$10,000 each. (Lately noted.)

Tex., Houston.—Mrs. W. Mendelvit let contract to Cottage Construction Co., Houston, to erect 2-story frame and stucco apartment-house; cost \$14,000. (Lately noted.)

ASSOCIATION AND FRATERNAL

Tenn., Memphis.—National War Work Council, Y. W. C. A., Gertrude Mayo, 660 Lexington Ave., New York, let contract to J. Walter Jones, Memphis, to erect hostess house at Park Field; 1½ stories; living-room, restroom, cafeteria and 8 bedrooms; veranda extend around building; Mrs. C. N. Burch, Chrmn. Local Committee.

Tex., Dallas.—Y. W. C. A., Grace M. Whiting, Gen. Secy., let contract to repair association building on Commerce St.

Tex., Waco.—American Red Cross Assn., Washington, D. C., let contract to J. M. Bush, Waco, to erect convalescent-house at Camp MacArthur; 2 stories; cost \$25,000. (See Government and State.)

BANK AND OFFICE

Fla., Belleair.—Bellevue Hotel let contract to G. A. Miller, Tampa, to erect building for swimming pool, etc.; offices and stores on ground floor; cost \$75,000. (See Hotels.)

Fla., Jacksonville.—Dixie Culvert & Metal Co. let contract to Henry T. Jones, 1702 Swift St., Jacksonville, to erect addition to factory and office building at Talleyrand and Jessie Sts.; office portion 24x24 ft.; factory 27x50 ft.; construction to conform with present building; corrugated iron roofing; office floor, wood; factory, cement; cost \$2000; equipment purchased. (H. T. Jones lately noted to erect business building.)

Tex., Cisco.—C. H. and Geo. W. Daniels let contract to build office and hotel building; site 100x115 ft. (See Hotels.)

Tex., San Antonio.—J. P. Haynes, San Antonio, general contractor, to erect building for National Bank of Commerce, let following sub-contracts; Atlantic Terra Cotta Co., Atlanta, Ga.; marble and tile, W. J. Deniger; ornamental iron and reinforcing steel, Alama Iron Works; metal lath partitions and sidewalk lights, A. Salisbury; plastering, W. J. Reilly; painting, W. J. Daily; sheet metal work and interior metal trim, T. P. Walsh Sheet Metal Works; millwork, Steves Sash & Door Co.; cement, San Antonio Portland Cement Co.; rock, Cholo Gravel Co.; plumbing, West & Gutzelt; wiring, Graham & Collins; all of San Antonio; mail chute, Cutler Mail Chute Co., Rochester, N. Y.; common brick, D'Hanis Brick & Tile Co., D'Hanis, Tex.; face brick, Acme Brick Co., Fort Worth; heating, Dixie Heating Co., Houston; plans by Adams & Adams, Gibbs Bldg., San Antonio, call for 7 stories and basement; 56x106.9 ft.; reinforced concrete; tar and

Fla., Miami.—John H. Haylin, Cincinnati, is having plans prepared by Gordon E. Mayer, Buena Vista, Fla., for 1-story concrete warehouse. (See Hotels.)

Ky., Lexington.—Farley Warehouse & Transfer Co., Incptd. with \$5000 capital by D. A. Crosby, Al. S. Farley and M. S. Moore.

Md., Baltimore.—Wright-Gibson Coal Co., Pittsburgh, Pa., will erect stables, storage structures, etc. (See Miscellaneous.)

N. C. Rowland.—Rowland Tobacco Warehouse Co. Incptd. with \$50,000 capital by A. D. McKenzie and others; will erect leaf-tobacco warehouse. (Lately noted.)

S. C., Darlington.—R. B. Price will erect tobacco warehouse.

S. C., Pamlico.—Pamlico Warehouse Co. Incptd. with \$10,000 capital by B. D. Dragan and A. Munn, Pamlico, and H. F. Dragan, Florence, S. C.

W. Va., Clarksburg.—W. V. Matheny will erect garage and storage room.

gravel roof; cement floors; steam heat; electric lights; prism vault lights; Otis elevator; cost \$15,000. (Previously noted.)

CHURCHES

Ky., Lebanon.—Methodist Episcopal Church, South, Rev. S. C. Evans, Pastor, let contract to J. H. Simpson, Paducah, Ky., to erect building; 25x50 ft.; frame; shingle roof; wood floors; cost \$2000; materials purchased. (Lately noted.)

La., Arcadia.—Baptist Church let contract to C. E. Andrews, Ruston, La., to erect church building; brick veneer; electric lights; hot-air heat; asbestos roof; cost \$9000. (Lately noted.)

N. C., Greensboro.—Christian (Disciples) Church let contract to W. B. Enoch, Greensboro, to erect building; bungalow type; cost \$10,000; Harry Barton, Archt., Greensboro.

S. C., Leesville.—Wittenberg Lutheran Church, Rev. V. Y. Booser, pastor, let contract to E. L. Crooks, Trenton, S. C., to erect church and Sunday-school building; 52x102 ft.; brick; probably tile roof; pine floors; dry-air heat; electric lights; cost \$20,000; G. Lloyd Preacher, Archt., Augusta. Address F. H. Hendrix, Leesville. (See Machinery Wanted—Heating Plant; Electrical Equipment; Seating; Church Equipment; Baptismal Font.)

Tex., Amarillo.—Methodist Church let contract to Geo. Parr, Amarillo, to erect building; 40x60 ft.; frame; shingle roof; pine floors; cost \$3100; W. R. Kaufman, Archt., Amarillo. (Lately noted.)

Tex., Lancaster.—Christian Church, Rev. Cephas Shelburne, Pastor, let contract to W. H. King, Scallard Bldg., Dallas, to erect building; 47x67 ft.; brick veneer; metal shingle roof; bowled double floor; heater in auditorium 35x35 ft. (no basement); electric wiring and lights; cost \$10,000; pews and brick purchased; C. W. Bulger & Son, Archts., Dallas. (Lately noted.)

CITY AND COUNTY

Ga., Macon.—Library.—Trustees Washington Memorial Library let contract to W. J. Beeland, Macon, to erect library building; 55x89 ft.; terra-cotta and concrete; gravel roof; concrete floors; steam heat; electric lights; cost \$46,242; Nisbet & Dunwoody, Macon, and A. Ten Eyck Brown, Atlanta, Archts. (Lately noted.)

DWELLINGS

Fla., Vero.—A. E. Sueverkruebe let contract to Travis & Wollen, Vero, to erect bungalow.

Ga., Atlanta.—G. A. Jossey, 263 W. Peachtree St., let contract to E. Norris, Atlanta Natl. Bank Bldg., Atlanta, to erect residence; 13 rooms; asphalt shingle roof; hardwood floors; electric lights; cost \$5500; Moncrief hot-air heat, \$350; Leila Ross Wilburn, Archt., Peters Bldg., Atlanta. Address owner at 40 Whitehall St., Atlanta. (Lately noted.)

Ga., Augusta.—A. M. Banks, Augusta, has contract to erect residence; 2 stories; hollow tile; cost \$6485.

Ga., Augusta.—Wm. Carpenter let contract to W. W. McNatt, Augusta, to erect residence and store building; cost \$4500.

Ga., Macon.—S. S. Dunlap let contract to W. D. Griffin, Macon, to remodel residence; cost \$3000.

La., Alexandria.—L. B. Constant will erect 2-story stucco residence; cost \$9000; W. H. Stafford, Contr., Alexandria.

La., Alexandria.—J. Powers, Jr., let contract to H. B. Ethridge, Alexandria, to erect frame residence; cost \$3000.

La., Alexandria.—W. H. Sylvester let contract to J. S. Burgess, Alexandria, to erect residence; frame; cost \$2500.

La., Alexandria.—J. V. Schexnaidre let contract to E. F. Michaels, Alexandria, to erect 1-story frame residence and garage; cost \$2800.

La., New Orleans.—Reliance Homestead Co. let contract to J. A. Petty, New Orleans, to repair residence; cost \$4500.

La., New Orleans.—T. V. Major let contract to T. E. Underwood, New Orleans, to erect residence; cost \$3200.

Md., St. Helena.—United States Shipping Board, J. Rogers Flannery, Director of Housing, 1319 F St. N. W., Washington, D. C., let contract to Consolidated Engineering Co., Calvert Bldg., Baltimore, Md., to erect 302 convertible houses, 4 kitchen-mess halls, power house and bakery; cost including grading, street work, etc., about \$800,000; Edward L. Palmer, Archt., 513 N. Charles St., Baltimore, Md. (Lately noted.)

N. C., Charlotte.—D. C. Carmichael let contract to J. N. Deal, Charlotte, to erect \$4500 dwelling. (Lately noted.)

N. C., Charlotte.—Charlotte Consolidated Construction Co. let contract to F. D. Blake, Charlotte, to erect 2 residences at 800 and 710 Worthington Ave.; cost \$2100 and \$3000, respectively. (Lately noted.)

N. C., Charlotte.—E. J. Manning let contract to J. D. Foard, Charlotte, to erect 6-room residence; cost \$2500.

Okl., Oklahoma City.—J. D. Hostettler, 1205 N. Dewey St., has plans by and let contract to M. A. Mize, 122½ S. Hudson St., Oklahoma City, to erect residence; 40x56 ft.; frame; shingle roof; double wood floors; cost \$8500. Address contractor. (Lately noted.)

S. C., Anderson.—Leopold Geisberg let contract to Townsend Lumber Co., Anderson, to erect residence; wood; cedar shingle roof; rift pine floors; electric lights; cost \$6500; Casey & Fant, Archts., Anderson. (Lately noted.)

Tex., Amarillo.—Frank Redder let contract to Geo. Parr, Amarillo, to erect residence at 1303 Taylor St.; 35x60 ft.; brick and tile; Carey asphalt shingle roof; cost \$7000; heating, \$485; sidewalk, \$200; W. R. Kaufman, Archt., Amarillo. (Lately noted.)

Tex., Amarillo.—Fredk. Kindall let contract to Geo. Parr, Amarillo, to erect residence; cost \$5000; 6 rooms; frame.

Tex., Beaumont.—Rutt Home Builders, Beaumont, have contract to erect residence at Spruce and Forrest Sts.; 28x36 ft.; frame; cypress shingle roof; single pine floors; flues; city electric lights; cost \$2000; Winter King, Archt., 549 Keith Bldg., Beaumont.

Tex., Beaumont.—Rutt Home Builders, 549 Keith Bldg., Beaumont, have contract to erect residence at Park and Railroad Aves.; 32x48 ft.; frame; cypress shingle roof; pine floors; fireplaces and flues; electric lights; cost \$2900; Winter King, Archt., 1095 Avenue B, Beaumont.

Tex., Houston.—P. E. Hardwicke let contract to S. A. Coulter, Houston, to erect residence; 7 rooms; frame and stucco; cost \$4750.

Va., Graham.—Bill Frazier let contract to W. P. Barnett to erect residence.

Va., Norfolk.—War Department, Washington, D. C., let contract to Roche Construction Co., Cincinnati, to erect 9 additional buildings for Army and Navy employees at navy-yard. (See Government and State.)

Va., Portsmouth.—Woody F. Harrell let contract to W. H. Watkins, Portsmouth, to erect 2-family 2-story frame dwelling; cost \$3700.

Va., Portsmouth.—Floyd Harris let contract to W. H. Watkins, Portsmouth, to erect 2-story frame dwelling; cost \$2000.

Va., Portsmouth.—B. E. White has contract to erect store and dwelling. (See Stores.)

Va., Richmond.—Thos. L. Moore let contract (turnkey job) to Moore & Harry, Richmond, to erect third story to rear of residence; Albert F. Hunt, Archt., Richmond. (Lately noted.)

GOVERNMENT AND STATE

D. C., Washington.—Treasury Department.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., let contract to Irwin & Leighton, 125 N. 12th St., Philadelphia, to erect annex to United States Treasury at Pennsylvania Ave. & Madison Place; 170x187 ft.; 6 stories, basement and sub-

basement; steel frame; terra cotta and concrete floor arches; granite and limestone exterior; copper, tile and slag roof; cost \$1,250,000; Cass Gilbert, Archt., 244 Madison Ave., New York. Address contractors. (Lately noted.)

Ga., Americus.—Warehouses, etc.—War Department, Washington, D. C., let contract to Hardaway Construction Co., Columbus, Ga., to erect \$500,000 warehouse at Souther Field; 823x210 ft.; also to erect 4 additional hangars; steel construction.

Ga., Atlanta.—Warehouses.—War Dept., Washington, D. C., let contract to Southern Ferro-Concrete Co., Atlanta, to erect 6 reinforced concrete warehouse at Camp Gordon; 60x100 ft.; cost \$114,000. (Lately noted.)

S. C., Charleston.—Quartermaster Depot.—War Dept., Washington, D. C., let contract to Mason & Hanger Co., branch office at Charleston, to erect quartermaster depot at North Charleston, to be known as Charleston Terminals; plans include concrete piers with frontage of 3000 to 5000 ft.; concrete warehouses and quarters for men in charge; estimated cost \$25,000,000; construction under supervision of Maj. J. L. Lee, Charleston. (Lately noted.)

Tenn., Memphis.—Hostess-house.—National War Work Council, Y. W. C. A., Gertrude Mayo, 660 Lexington Ave., New York, let contract to J. Walter Jones, Memphis, to erect hostess-house at Park Field. (See Assn. & Frat.)

Tex., Fort Worth.—Barracks and Quarters. Cantonment Division, War Department, Washington, D. C., let contract to Weston & Kroeger, Moore Bldg., San Antonio, to erect barracks and quarters for regiment of cavalry; cost \$250,000.

Tex., San Antonio.—Warehouses.—War Department, Washington, D. C., let contract to Webster Co., San Antonio, to erect 2 warehouses on Seguin Rd. near San Antonio; total cost \$32,000.

Tex., San Antonio.—Warehouses.—War Department, Washington, D. C., let contract to McKenzie Construction Co., San Antonio, to erect 6 additional warehouses at Camp Travis; 60x168 ft.; cost about \$125,000; Capt. F. G. Chamberlain, Construction Quartermaster, San Antonio.

Tex., Waco.—Convalescent-house.—American Red Cross Assn., Washington, D. C., let contract to J. M. Bush, Waco, to erect convalescent-house at Camp MacArthur; 2 stories; cost \$25,000. (Previously noted.)

Va., Newport News.—Transport Supervisor's Office.—Bureau of Yards and Docks, Navy Department, Washington, D. C., let contract to Harwood & Moss, Silsby Bldg., Newport News, to erect transport supervisor's office; cost \$37,185.

Va., Norfolk.—Dwellings.—War Department, Washington, D. C., let contract to Roche Construction Co., Cincinnati, to erect 9 additional buildings for Army and Navy employees at navy-yard; cost about \$230,000.

Va., Portsmouth.—Camp.—War Department, Washington, D. C., let contract to Roche Construction Co., Cincinnati, to construct camp for negro soldiers.

HOSPITALS, SANITARIUMS, ETC.

La., Arcadia.—F. T. Taylor, J. W. Sherard and Leo Daniel let contract to C. E. Andrews, Ruston, La., to erect hospital building; 3 stories; brick; steam heat, plumbing and electric wiring to be let separately; 34.6x78.10 ft.; roofing not decided; cost \$18,000. (Lately noted.)

N. C., Morehead City.—Morehead City Hospital let contract to W. R. Wyatt, Wilson, N. C., to erect general hospital building; 90x100 ft.; ordinary construction; slate roof; wood and tile floors; steam heat; electric lights, silent signal system; electric elevators; cost \$28,000; Benton & Benton, Archts., Wilson. Address contractor. (Lately noted.)

HOTELS

Fla., Belleair.—Bellevue Hotel let contract to G. A. Miller, Tampa, to erect swimming pool and casino; 106x129 ft.; brick; stuccoed on outside with white cement; interior, concrete lined with tile; fireproof; composition roof; tile and cement floors; steam heat; electric lights; second floor for dance hall; ground floor, offices and stores; laundry, drying-rooms and Turkish baths in basement; pool 60x75 ft.; observation seats in tiers extending around 3 sides and overlooking pool; pool equipped with chute, springboard, etc.; surrounding pool on 4 sides will be walkway, along which will be 104 dressing-rooms; cost \$75,000. (Lately noted.)

N. C., Asheville.—Langen Hotel (J. H. Lange and Gay Green, owners) let contract to convert top floor of hotel, comprising ballroom, roof garden and sample-rooms; into 40 bedrooms, each with private bath; fireproof construction; also increase height of tower on hotel and build miniature porches facing court; Smith & Carrier, Archts., Asheville.

S. C., Spartanburg.—W. T. Finch, Prop. Finch Hotel, let contract to Willard, Boggs & Co., Spartanburg, to erect addition to hotel; 6 stories; fireproof; reinforced concrete; 48x200 ft.; 110 rooms with private bath; veranda 12x48 ft. on 1st and 2d floors; sample-rooms and ballroom on 6th floor; front of both office and dining-room of tile; floors in hall and rooms to have tile borders; cost about \$150,000.

Tex., Cisco.—C. H. and Geo. W. Danfels let contract to erect hotel and office building; site 100x115 ft.

MISCELLANEOUS

Fla., Belleair.—Swimming Pool.—Bellevue Hotel let contract to G. A. Miller, Tampa, to erect swimming pool and casino; 106x129 ft.; brick; stuccoed on outside with white cement; interior, concrete lined with tile; cost \$75,000. (See Hotels.)

La., Shreveport.—Fair.—State Fair Assn. let contract to Tom Green, 338 First National Bank Bldg., Shreveport, to erect administration building on State Fair Grounds; 123.4x249.5 ft.; terra cotta, brick and wood; Barrett roof; concrete floors; electric lights (not in contract); cost \$68,000; Neij & Oldchner, Archts., City National Bank Bldg., Shreveport. Address contractor. (Lately noted.)

N. C., Charlotte.—Clubhouse.—Charlotte Consolidated Construction Co. let contract to J. N. Deal, Charlotte, to remodel building at S. Tyron and Stonewall Sts. for Soldiers' Club; W. H. Peeps, Archt., Charlotte. (Charlotte War Camp Community Service Comsn. previously noted as reported to have rented building and to remodel for Soldiers' Club.)

N. C., Charlotte.—Home.—Rescue Home Assn. let contract to J. D. Foard, Charlotte, to overhaul, remodel and install plumbing in building; cost \$2000.

RAILWAY STATIONS, SHEDS, ETC.

Ky., Paducah.—Illinois Central Ry. Co., A. S. Baldwin, Ch. Engr., Chicago, let contract to Geo. W. Katterjohn, Paducah, for extension of shed at Union Station.

N. C., Charlotte.—E. D. Latta, 209 Latta Arcade Bldg., let contract to Charlotte Consolidated Construction Co., Charlotte, to erect interurban railway passenger station; 40x110 ft.; brick; pitch and gravel roof; tile floors on concrete base; steam heat; construction begins about May 15; W. H. Peeps, Archt., Charlotte. (Lately noted.)

SCHOOLS

Ark., Hamlin.—School Dist. No. 13, Cross County, let contract to O. C. Beamon, Wynne, Ark., to erect school building; 25x50 ft.; 20-ft. wall; frame; composition shingle roof; pine floors; cost \$4500; Clyde A. Ferrell, Archt., Little Rock. (Lately noted.)

Miss., Arcola.—Board of Trustees, Arcola Consolidated School Dist., let contract at \$37,000, including heating, wiring and equipment, to J. H. Myers, Jackson, Miss., to erect school building; Wm. A. Stanton, Archt., Vicksburg, Miss. (Previously noted.)

N. C., Charlotte.—School Board let contract to J. D. Foard, Route No. 9, Charlotte, to erect lately-noted addition to school in Fourth Ward; 34x34 ft.; 2 stories; brick and wood; Carey roofing; wood floors; cost \$4300; steam heat (not let), \$150; electric lights; L. L. Hunter, Archt., Charlotte. (See Machinery Wanted—Brick.)

N. C., Marshall.—Madison County Board of Education let contract to erect 10-room school building; cost \$15,000. (Lately noted.)

Okl., Chickasha.—State Board of Affairs, Oklahoma City, let contract to Campbell & Price, Oklahoma City, to erect 50-room addition to Nellie Sparks Hall at Oklahoma College for Women; cost about \$100,000; Layton & Smith, Archts., Oklahoma City. (Previously noted.)

Okl., Norman.—State Board of Affairs, Oklahoma City, let contract to Kreipke-Schafer Construction Co., Okmulgee, Okla., to erect library building at University of Oklahoma; 2 stories; 80x120 ft.; stone and reinforced concrete; cost \$75,000. (Lately noted.)

Tex., Bynum.—Board of Education let contract to R. E. Ewing, Cleburne, Tex., to erect school building; 57x80 ft.; mill construction; tar and gravel roof; wood and concrete floors; room heaters; cost \$2000; T. J. Galbraith, Archt., Dallas. Address contractor. (Lately noted.)

Tex., Coleman.—Parent-Teachers' Club let contract to M. E. Edgerton, Coleman, to erect domestic science building on High School campus.

Tex., Huntsville.—Gross & Swigert, Waco, Tex., general contractors, to erect educational building at Sam Houston State Normal School, let following sub-contracts: Houston (Tex.) Structural Steel Co., structural and ornamental steel; Torbett-Germond Co., sheet metal and roofing; A. E. Snelling, painting; Waco Sash & Door Co., millwork; all of Waco; Henry Weiss Cornice Co., Kansas City, Mo.; plans by Endress & Watkins, Austin and Houston, call for reinforced concrete structure to cost \$38,400. (Previously noted.)

Tex., Orange.—City School Board let contract to Jones Construction Co., San Antonio, to erect Curtis School; 3 stories; brick, tile and concrete; fireproof; also let contract to Trinity Construction Co., Dallas, to remodel Anderson School; total cost about \$100,000; C. H. Page & Bro., Archts., Austin. (Lately noted.)

STORES

Ala., Sylacauga.—Smith Bros. let contract to V. R. Durden, Alexander City, Ala., to erect store building; 2 stories.

Ark., DeWitt.—D. W. and R. G. Dudley let contract to H. Duzenberry, DeWitt, to erect store building; 50x85 ft.; 2 stories; mill construction; asphalt roof; electric lights; cost \$16,000; John P. Almand, Archt., Little Rock. Address contractor.

Fla., Belleair.—Bellevue Hotel let contract to G. A. Miller, Tampa, to erect building for swimming pool, offices, etc.; cost \$75,000. (See Hotels.)

Ga., Augusta.—Wm. Carpenter let contract to W. W. McNatt, Augusta, to erect store and dwelling; cost \$4500. (See Dwellings.)

La., Bernice.—D. A. Pollock let contract to C. E. Andrews, Ruston, La., to erect store building; 30x75 ft.; brick; concrete floors; cost \$5000.

Tex., Fort Worth.—Mrs. Winfield Scott let contract to S. A. Tomlinson, Fort Worth,

to alter building at 1200 Main St.; cost \$2500. (Lately noted.)

Tex., Waco.—H. M. Baine, Sioux City, Iowa, has plans by and let contract to Ross & Cason, Waco, to erect Piggly Wiggly store building at 118-30 S. 8th St.; 50x120 ft.; 2 stories; brick; cement and tile floors; cost \$13,000; construction begins about May 20. Address Ross & Cason. (Lately noted.)

Va., Portsmouth.—B. E. White has contract to erect 2-story store and dwelling on High St.; cost \$9000.

THEATERS

Tex., Orange.—H. Thomas let contract to J. S. Merriweather, Orange, to erect theater; interlocking tile and stucco; cost \$3000; W. R. Griffin, Archt., Orange. (Lately noted.)

WAREHOUSES

Ga., Americus.—War Department, Washington, D. C., let contract to Hardaway Construction Co., Columbus, Ga., to erect \$500 warehouse at Southern Field. (See Government and State.)

Ga., Augusta.—Central Real Estate & Warehouse Co. let contract to Sibert & Robinson, Augusta, to erect warehouse; 4 compartments; cost \$10,000.

Mo., St. Louis.—James F. Ballard, 500 N. Second St., let contract to J. D. Paulus, Jr., St. Louis, to erect warehouse; 25x125 ft.; brick; 5-ply gravel roof; factory maple flooring; cost \$20,000; John D. Paulus, Archt., St. Louis.

S. C., Charleston.—War Dept., Washington, D. C., let contract to Mason & Hanger Co., branch office at Charleston, to erect quartermaster depot at North Charleston, to be known as Charleston Terminals; plans include warehouses, piers, etc. (See Government and State.)

Tex., Houston.—Gulf Red Cedar Co. will erect warehouses; frame; cost \$4000; G. C. Searcy, Contr., Houston.

Tex., San Antonio.—War Department, Washington, D. C., let contract to Webster Co., San Antonio, to erect 2 warehouses on Seguin Rd., near San Antonio; total cost \$32,000. (See Government and State.)

Va., Port Norfolk.—Imperial Tobacco Co., Ltd., Richmond, Va., let contract to J. H. Pierce, Norfolk, to erect 2 storage warehouses; 581x133 ft. and 349x133 ft.; brick; 5-ply slag roof; joist floor construction; cost \$175,000; C. C. Davis, Archt., Richmond. (Lately noted.)

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Adding Machines.—See Automobiles, etc.—G. Vincent & Cie.

Alternator (Electrical).—Nixon Electric Light & Power Co., W. L. Hoover, Mgr., Nixon, Tex.—Prices on 17½ K. W. alternator.

Automobiles, etc.—G. Vincent & Cie, 7 Avenue Malaussena, Nice, France.—To represent manufacturers of: Small, practical and economical automobiles; new and restored typewriting machines; sewing machines with rotary shuttles; office furniture; parts and accessories for same and for typewriters; strong boxes (safety boxes); copying presses.

Bank Fixtures.—Laurel Fork Bank, J. E. Bowman, Cash.-Elect. Laurel Fork, Va.—Prices on bank fixtures, safe and vault.

Baptismal Font.—See Church Equipment. F. H. Hendrix.

Barges.—Hampton Roads Dredging & Equipment Corp., 148 E. Queen St., Hampton, Va.—Several barges or scows; rent or purchase. (See Dredge.)

Boiler (Steam).—R. H. Etheredge, Saluda, S. C.—Prices on second-hand 100 H. P. boiler, to carry 125 lbs. steam; good condition, not needing to be refueled.

Blades (Butcher Knife).—W. T. Johnson, Jasper, Fla.—Prices on butcher-knife blades, big grade; desires correspondence relative to placing order for manufacture.

Boiler.—Tiller Manganese Corp., 321

Princeton Ave., Bluefield, W. Va.—Prices on 50 H. P. boiler. (See Engine and Boiler)

Boiler.—Hominy Cotton Oil & Ice Co., Hominy, Okla.—Prices on 72-in. by 18-ft. boiler; for August delivery.

Boilers (Boat).—Baltimore (Md.) Board of Awards, City Hall.—Bids until May 15 to furnish and install boilers on iceboat Annapolis; specifications and plans obtainable from Harbor Board, Wm. W. Varney, Harbor Engr., Broadway Pier.

Boiler (Water Tube).—Chas. A. McLean, 412 Citizens' Bank Bldg., Norfolk, Va.—Dealers' prices on 500 to 600 H. P. water-tube boilers; B. & W. preferred; good condition; state location, equipment, etc.

Boring Machine.—R. L. Hickerson, Wentworth, N. C.—Boring or chiseling machine.

Bottling Machinery.—United Beverage Co., Box 407, Petersburg, Va.—Prices on equipment for bottling soft drinks.

Brick.—J. D. Foard, Route No. 9, Charlotte, N. C.—Common brick for \$4300 school addition.

Bridge Construction.—Muskogee County Comms., Muskogee, Okla.—Bids to construct concrete girder bridges on Jefferson Highway: Bridge No. 133-C, 80-ft. reinforced concrete girder, 1 mi. south of Summit, Okla., and Bridge No. 134-C, 80-ft. consisting of two 40-ft. reinforced concrete girders, 2½ mi. south of Summit, Okla.; bids until May 6; bids on two classes of

construction of piers and abutments, concrete and stone masonry; county to furnish steel for reinforcement, f o b cars Muskogee; Lewis F. Kipp, County Clerk; T. P. Clouts, County Engr., both of Muskogee.

Cans (Garbage).—Janney & Co., Montgomery, Ala.—Dealers' prices on garbage cans; 6 doz. to gross, each 15x26 in. and 21x26 in., or approximate sizes; cans to be heavy galvanized and ribbed or reinforced top and bottom, with corrugated sides; water tight.

Casing.—See Pipe and Casing.—Chelsea-Ridge Oil & Gas Co.

Church Equipment.—F. H. Hendrix, Leesville, S. C.—Prices on pews, pulpit, altar, lecturer, baptismal font and carpet for \$20,000 Lutheran church building.

Concrete Road Work.—State Highway Comsn., G. P. Coleman, Commr., Richmond, Va.—Bids until May 15 to construct concrete shoulders to 1.4 mi. of concrete road, between Petersburg and Lakemont, known as Hopewell Road; plans and specifications on file with State Highway Comsn.; specifications on application to Mr. Coleman.

Cotton Yarn.—Atkinson Hosiery Mills, Atkinson, N. C.—Prices on cotton yarn.

Crusher (Stone; Jaw).—Gager Lime & Mfg. Co., Chattanooga, Tenn.—Prices on stone crusher; jaw type; opening about 15 in. by 20 in.; no accessories; for installation at limestone quarries, Sherwood, Tenn.

Concrete (Pipe) Machinery.—Charleston Crushed Stone Co., Harold W. Abraham, Secy., Morrison Bldg., Charleston, W. Va.—Data and prices on machinery to manufacture concrete pipe.

Crane (Traveling), etc.—Janney & Co., Montgomery, Ala.—Prices on overhead traveling crane (hand-power) for pouring iron in foundry; width of space from tracks (already up) about 25 ft.; also separate price on geared crane ladle, 1200 to 1500 lbs. capacity.

Creamery Equipment.—Yazoo Ice Co., J. W. Hunter, Mgr., Yazoo City, Miss.—Prices on creamery equipment; has building, power and refrigeration.

Cut Stone.—Frank R. Watson, 1211 Walnut St., Philadelphia, Pa.—Prices on cut stone (Indiana limestone) for 50x80-ft. parish-house at Norfolk, Va.

Drainage Construction.—South River Drainage Dist., B. F. Smiley, Chief Engr., Hannibal, Mo.—Bids for excavating and laying \$25,000 worth of tile arranging from 12 to 30 in.

Dredge (Hydraulic).—Hampton Roads Dredging & Equipment Corp., 148 E. Queen St., Hampton, Va.—Hydraulic dredge, immediate delivery; several scows or barges; rent or purchase; use at or near Old Point.

Dredging (Canal).—Mattamuskeet Drainage Comsn., S. W. Frescoln, Suprv. Engr., New Holland, N. C.—Bids for cleaning canals; 200,000 cu. yds. excavation; dipper or hydraulic dredge; plans, specifications, etc., on file.

Dredging Contract, etc.—Veneer Mfg. Co., W. A. Stille, Secy., Conway, S. C.—Bids on dredging river bottom at plant, pumping the earth so removed and filling in low places on mill site; also wants prices on dredging and pumping machinery for this work.

Dredging Machinery.—See Dredging Contract, etc.—Veneer Mfg. Co.

Dyeing Machinery.—Chickasaw Hosiery Mills, T. E. Cullen, Secy.-Treas., 707 Colcord Bldg., Oklahoma City, Okla.—Dyeing machinery. (See Dyeing Machinery.)

Dyeing Machinery.—Chickasaw Hosiery Mills, T. E. Cullen, Secy.-Treas., 707 Colcord Bldg., Oklahoma City, Okla.—Dyeing machinery for mill with daily capacity 350 to 400 doz. prs. whole and half-hose; also drying machinery.

Electrical Equipment.—F. H. Hendrix, Leesville, S. C.—Prices on electrical equipment for \$20,000 church building.

Electrical Equipment.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Dept., Washington, D. C.—Bids until May 13 to install substitution switchboards at Navy-yard, Washington, D. C.; cost \$60,000; for further information address Chief.

Electrical Equipment.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Dept., Washington, D. C.—Bids until May 13 to furnish and install cables, wires, transformers and accessories for electric and telephone systems for drydock No. 4 at navy-yard, Norfolk, Va.; drawings and specification No. 2875 obtainable from Bureau or Commandant of navy-yard named.

Continued on Page 82.)

Capital and Surplus
\$4,000,000



Total Resources
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FINANCIAL NEWS

FINANCIAL CORPORATIONS

Ala., Ashland.—Clay County Insurance Agency, capital \$15,000, incptd. by G. W. Griffin, J. B. White, A. A. Northern and C. W. Allen.

Ala., Monroeville.—Peoples' Savings Bank, capital \$25,000, is organized by J. K. Keyser, Burnt Corn, Ala.; W. M. Newton and C. P. Deming of Evergreen, and A. C. Lee of Monroeville.

Fla., Arcadia.—Arcadia Investment Co. chartered; capital \$25,000. Ed. Scott, Pres.; L. M. Fouts, V.-P.; Robert F. Hughes, Secy.-Treas.

Ga., Hamilton.—Peoples' Bank of Hamilton chartered, capital \$25,000. Business began March 14. E. L. Pearce, Pres.; Dayton Calhoun and Brittain Williams, V.-Ps.; E. F. Vickers, Cashier.

La., Longville.—First National Bank applied for charter; capital \$25,000.

La., Sicily Island.—Sicily State Bank, capital \$15,000, organized with W. S. Peck, Pres.; T. J. Chisolm, V.-P.; Fred Falkenheimer, Cash.

Okla., Canton.—First National Bank applied for charter; capital \$25,000.

S. C., Clinton.—Bell-Workman Bank chartered; capital \$15,000; J. D. Bell, Pres.; C. R. Workman, V.-P., and C. C. Wallace, Cash.

Tex., Grand Prairie.—First National Bank chartered; capital \$25,000.

Tex., McAllen.—First National Bank chartered; capital \$50,000.

Tex., New Waverly.—Citizens' State Bank, capital \$25,000, has applied for charter.

Va., Laurel Fork.—Laurel Fork Bank chartered; capital \$20,000, surplus \$2,000. Business is to begin July 1. Walter Hyton, Pres.; Meadows of Dan; H. L. Lawson, V.-P.; J. E. Bowman, Cash.

Va., Lynchburg.—Lynchburg Investment Co. commissioned; capital \$10,000. Petitioners: J. W. Tarrant, S. W. Frierson and W. J. McLeod.

Va., Norfolk.—Finley & Bott, Inc., capital \$10,000 to \$20,000, to conduct a general insurance and bonding agency business; L. D. Finley, Pres.; W. M. Bott, Secy.-Treas.; Earl W. White, V.-P.

Va., Penniman.—First National Bank chartered; capital \$25,000.

NEW SECURITIES

Ark., Luxora.—(Water-works).—City has issued \$10,000 bonds. Address The Mayor.

Fla., Bradentown.—(Bridge).—City will sell

at private sale \$45,000 of 5 or 6 per cent. 30-year \$500 denomination bonds voted Apr. 30. Address L. L. Hill, City Clerk. H. S. Glazier is Mayor.

Fla., Dade City.—(Street).—Jas. E. Turner, City Clerk, will receive sealed bids until 7 P. M. May 7 for \$5000 of 5 per cent. street-paving bonds; maturity March 1, 1938.

Fla., Greenville.—(Water-works).—City votes May 7 on bonds for constructing water-works system. Address The Mayor.

Fla., Quincy (School).—Quincy Special Tax School Dist. No. 1, Gadsden County, recently voted \$42,000 of bonds. F. F. Morgan, Clk. Circuit Court, Gadsden County.

Fla., West Palm Beach.—City has sold at \$1069 premium to F. C. Hoehler & Co., Toledo, \$52,000 refunding and \$16,000 canal bonds. Denomination \$500.

La., Bossier City.—(Water-works).—No sale was made April 30 of the \$30,000 of 5 per cent. 1-40-year \$500 denomination bonds offered on that date; W. W. Hutchings, Village Clerk.

Mid., Hagerstown.—(Water).—Mayor and Council have passed ordinance authorizing issue of \$850,000 of 5 per cent. bonds (subject to approval of United States Government) to pay for plant of Washington County Water Co.

Miss., Ellisville (Street).—Bd. of Aldermen, H. P. Gough, City Clk., gives notice of intention to issue \$3000 of bonds.

Miss., Senatobia.—(School).—Board of Suprvs., Tate County, J. A. Wooten, Clerk, will receive bids until 2 P. M. May 6 for \$5000 of 6 per cent. bonds Crockett Consolidated School Dist.

Miss., West Point.—(Railroad Refunding).—City sold at \$1750 premium to Monroe Bank & Trust Co., Aberdeen, Miss., \$50,000 of 6 per cent. \$500 denomination refunding Georgia Pacific R. R. bonds. J. L. Young, City Clerk.

Mo., Kennett.—(School).—Bark Camp School Dist. No. 40, Dunklin County, sold to E. A. Gessler of St. Louis, Mo., \$1700 of 6½ per cent. bonds recently voted.

Mo., Richmond.—(Water).—City will vote on \$32,000 bonds. Address The Mayor.

N. C., Asheville.—(Refunding).—Bids will be opened June 12 by City Commrs., F. L. Conder, Secy.-Treas., for \$99,000 of 5½ or 6 per cent. \$1000 denomination annual serial bonds; J. E. Rankin, Mayor.

N. C., Kenilworth.—(Special Assessment).—Town will issue \$15,000 of not exceeding 6 per cent. 20-year assessment bonds to pay temporary loan for street improvements, etc. R. A. Marvel, Town Clerk.

N. C., Lillington.—(Road).—Grove Township, Harnett County, sold to Prudden & Co., Toledo, O., \$30,000 of 6 per cent. 20-year \$500 denomination bonds, dated May 1, 1918. Address Dr. H. C. Roberts, Coats, N. C.

N. C., Statesville.—(Funding Bridge).—Fredell County, N. D. Tomlin, Chrmn. Board of Commrs., sold on April 23, at par and interest, to Baker, Watts & Co., Baltimore, \$40,000 of 5 per cent. bonds.

Okla., Ardmore (Barn, Storage-house).—City voted \$20,000 bonds. W. R. Roberts, Mayor.

Okla., Bennington.—(School).—School Trustees will call election to vote on bonds.

Okla., Blackwell (Light, Water, Fire Station).—Atty.-Genl. approved \$82,500 electric-light, \$77,500 water-works and \$15,000 fire-station bonds. Address The Mayor.

Okla., Geary.—(Water, Sewer).—City recently voted \$10,000 water-works, \$40,000 sewer 6 per cent. 5-25-year bonds, dated April 1, 1918. H. E. Summers, City Clerk.

Okla., Kingfisher.—(Waterworks).—Atty.-Genl. approved \$50,000 bonds. Address The Mayor.

Okla., Krebs.—(School).—City voted \$17,000 of 5 per cent. 20-year \$1000 denomination bonds. H. W. Keple, Clerk School Board.

Okla., Muskogee.—(State Fair Grounds).—City purchased at par for its sinking fund \$100,000 of 5 per cent. 20-year \$1000 denomination fair-grounds park-improvement bonds. Address City Clerk.

Okla., Quinton.—(Water-works).—City voted May 5 on \$98,000 bonds. Address The Mayor.

Okla., Oklahoma City.—(School).—Election contemplated to vote on \$600,000 bonds. Address School Board.

Okla., Ponca City.—(Water-works).—City offers for sale \$20,000 of 5 per cent. 20-year \$1000 denomination bonds, dated Oct. 18, 1917, and maturing Oct. 18, 1937; G. E. Johnston, City Clerk.

Okla., Prague.—(Light, Water).—Bids opened May 14 for \$45,000 of 6 per cent. \$1000 denomination bonds, maturing 1939. Roy Parks, Mayor.



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Okl., Willow—(School).—School Board plans election to vote on bonds.

S. C., Abbeville—(School).—Public School Dist. No. 26, Abbeville County (known as Campbell Public School Dist.), votes May 11 on \$1000 of 6 per cent. \$100 denomination bonds, dated Dec. 1, 1918. S. M. Beatty, J. A. Campbell and W. B. Mann, Board of Trustees.

S. C., Edisto Island—(Bridge).—Township Commrs., J. G. Murray, Chmn., has sold at par to James Summons, Charleston, \$7000 of 5 per cent. \$500 denomination bonds.

S. C., Lancaster—(School).—Lancaster School Dist. votes May 21 on \$85,000 of 5 per cent. 25-year \$100 and \$500 denomination bonds; Leroy Springs, J. D. Funderbunk and others, Trustees.

Tenn., Johnson City—(Courthouse, School).—No sale was made April 30 of the \$75,000 of 5½ per cent. courthouse and \$50,000 of 5 per cent. school bonds offered on that date. W. O. Dyer, City Mgr.; R. C. Warren, Recorder.

Tenn., Oneida—(Street).—City plans to issue \$500,000 of 6 per cent. 10-30-year \$500 denomination bonds. Address L. G. Carson.

Tex., Coleman—(Road).—Coleman County has not voted \$100,000 of bonds; none contemplated. Recent report is error.

Tex., Fort Stockton—(School).—Atty.-Genl. approved \$20,000 Fort Stockton Independent School Dist. 5 per cent. 15-40-year bonds. Address School Board.

Tex., Fort Worth—(School).—Riverside School Dist., Tarrant County, plans to issue \$12,000 bonds. Address School Board.

Tex., Gonzales—(Road).—Road Dist. No. 4, Gonzales County, votes May 25 on \$10,000 of not exceeding 5½ per cent. bonds. J. C. Romber, County Judge.

Tex., Granbury—(School).—Cresson Dist., Hood County, has voted and sold \$8000 of bonds. A. F. Lorne, Secy. School Board.

Tex., Hempfield—(Road).—Attorney-General has approved \$249,000 of Saline County bonds recently purchased by a Chicago firm. Address County Commrs.

Tex., Hillsboro—(Road).—Hill County has not yet ordered election for proposed bond issue; interest will probably be 5 per cent. R. T. Burns, County Judge. (Lately noted.)

Tex., Houston—(Road).—Attorney-General has approved 5 per cent. 10-40-year \$100,000 of Harris County bonds recently reported sold. They are part of a \$100,000 issue, portions of which have been approved.

Tex., Polytechnic—(Warrants).—City has sold to J. L. Arlitt, Austin, Tex., \$13,000 of 6 per cent. water-works warrants, dated Feb. 8, 1918, and maturing serially 1919 to 1935, inclusive.

Tex., Stephenville—(School).—Atty.-Genl. approved \$500 of 5 per cent. 10-20-year bonds Erath County Common School Dist. 32. Address School Board.

Tex., Waxahachie—(School).—Atty.-Genl. approved \$5000 5 per cent. serial bonds Ellis County Common School Dist. 119. Address School Board.

FINANCIAL NOTES

Central State Bank, Muskogee, Okla., increased capital from \$50,000 to \$100,000.

First State Bank, Westminster, Tex., increased capital from \$10,000 to \$12,500.

Farmers' Bank of Boyle, Miss., contemplates increasing capital from \$10,000 to \$20,000.

San Juan State Bank of San Juan, Tex., will increase capital \$10,000 to \$25,000.

Garwood State Bank of Garwood, Tex., capital increased \$10,000 to \$25,000.

First State Bank of Hemleigh, Tex., capital increased from \$10,000 to \$25,000.

Southern Bank & Trust Co., Valdosta, Ga., reorganized and capital increased from \$100,000 to \$150,000; C. L. Smith, Pres.

Wharton National Bank, Wharton, Tex., reorganized under name of Security Bank & Trust Co.; capital increased to \$50,000. A. A. Mullins, Pres.

Horace R. Gaither has been appointed Chief National Bank Examiner for the Tenth Federal Reserve District, with headquarters at Kansas City, Mo. He succeeds former Chief Examiner Rising, who resigned to accept the vice-presidency of a national bank in Omaha, Neb.

Imperial Brass Catalogue.

The Imperial Brass Manufacturing Co. has just issued its Catalog No. 142, describing in detail its full line of welding and cutting equipment and burning and lead-burning outfits. It also reviews the history of welding and cutting and its relation to the metal industries, dwelling especially upon present-day necessities in this respect. All of the various industries using welding and cutting equipments are listed, and with these particulars is a complete account of the many ways in which the outfits may be utilized. For them are claimed safety, practicability, durability, economy and portability. The Imperial mixing principle is also explained. Several different sizes of these outfits are illustrated as well as described, the various parts and accessories being catalogued thoroughly. There are also pictures and descriptions of work done. The catalogue will be sent free on application to the company, whose address is 1200 W. Harrison St., Chicago, Ill.

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MACHINERY, PROPOSALS AND SUPPLIES WANTED

(Continued from Page 79.)

Electrical Machinery.—R. O. Blanchard, Gliden, N. C.—Data and prices on electrical and water-power machinery.

Engine (Corliss).—Chas. A. McLean, 412 Citizens' Bank Bldg., Norfolk, Va.—Dealers' prices on good Corliss engine, standard make, 24 to 30 by 48. Give details and location.

Engine and Boiler.—Tiller Manganese Corp., 321 Princeton Ave., Bluefield, W. Va. Prices on 35 H. P. engine and 50 H. P. boiler; good condition; immediate delivery.

Engine (Oil; Crude).—Tennessee Manganese Co., D. C. Campbell, Prest., Knoxville, Tenn.—Prices on 60 or 75 H. P. crude oil engine; prompt shipment desired; prefer new engine; would purchase second-hand, in good condition, and prompt delivery.

Envelope Machines.—Manuel F. Canossa, Box 281, Habana, Cuba.—Addresses of manufacturers of machines to make small envelopes.

Excelsior Packing Pads, etc.—United Dealers' Buying Co., Norfolk, Va.—Data and prices on excelsior jackets for quarts, pints and half-pints; also excelsior pads 12x16; from manufacturers in vicinities of Baltimore, Philadelphia or Richmond preferred.

Fans (Electric).—White Star Coal Co., W. L. Hammond, Gen. Mgr., White Star, Ky.—Prices on two 4-ft. and one 8-ft. electric fans.

Filters (Water).—E. G. Smith, 315 W. Park Ave., Tampa, Fla.—Addresses of manufacturers of household water filters and distillers.

Forgings (Drop Steel).—Victor Cooler Door Co., Hagerstown, Md.—Addresses of manufacturers of drop steel forgings; in vicinity of Baltimore or Hagerstown preferred.

Generator (Electric).—American Metallic Packing Co., Lexington, Ky.—Prices on 300 K. W. D. C. 250-volt generator, direct connected to steam engine; second-hand; first-class condition.

Generator (Electric).—3036 K St. N. W., Washington, D. C.—Prices on 35 K. W. generator, D. C., 125-volt.

Glass, Etc.—Dept. of Justice, Office Supt. Prisons, Washington, D. C.—Bids until May 21 for furnishing (at United States Penitentiary, Leavenworth, Kansas) glass, glazing material and glue; specifications, further information, etc., on application.

Handle Machinery.—Collins Gaines, Texarkana National Bank Bldg., Texarkana, Tex. Addresses of manufacturers of machinery to make broom and mop handles, etc.

Heating Plant.—Pembroke Graded School Dist., R. L. Wells, Clerk, Pembroke, Ky.—Prices on steam-heating plant for \$8000 school building.

Heating Plant.—F. H. Hendrix, Leesville, S. C.—Prices on dry air heating plant for \$20,000 church building.

Hoops (Wooden) and Hoop Material (Iron Band).—Tarpon Lumber & Supply Co., P. O. Box 221, Tarpon Springs, Fla.—Prices on wooden (elm preferred) hoops; also iron band hoop material for barrels.

Ice Machine.—3036 K St. N. W., Washington, D. C.—Prices on steam-driven 15-ton (refrigeration) ice machine.

Ladle.—Janney & Co., Montgomery, Ala.—Prices on geared crane ladle; 1200 to 1500 lbs. capacity. (See Crane.)

Lath (Metal).—Dept. of Justice, Office Supt. Prisons, Washington, D. C.—Bids until May 21, to furnish (at the United States Penitentiary, Leavenworth, Kans.) 2500 yards metal furring lath; specifications on application.

Locking Devices.—Estes W. Mann, Archt., Bank of Marianna Bldg., or Judge J. A. Plummer, Marianna, Ark.—Prices on lever locking devices for cellrooms in \$12,000 jail.

Milling Machinery.—See Peanut Flour Machinery.—Thomas Huston.

Mining Equipment (Coal).—See Motors; Fans; Rails; Wire (Copper).—White Star Coal Co.

Mixer (Concrete).—E. S. Draper, Trust Bldg., Charlotte, N. C.—Prices, with details, on new or second-hand small concrete mixer for mill village paving work.

Motors.—White Star Coal Co., W. L. Hammond, Gen. Mgr., White Star, Ky.—Prices on one 8-ft. and two 4-ft. electric fans and motors.

Office Supplies.—See Automobiles, etc.—G. Vincent & Cie.

Oil Presses (Castor Bean, etc.).—Helm & Walker, Lawyers' Bldg., Miami, Fla.—Data on processes, costs, etc., of extracting castor oil and peanut oil, and utilizing by-products, with prices on machinery.

Oil-refinery Equipment.—Blue Ribbon Oil & Refining Co., Oil Exchange Bldg., Walters, Okla.—Prices on complete equipment for oil refinery, capacity 5000 bbls.

Peanut Products Machinery.—Helm & Walker, Lawyers' Bldg., Miami, Fla.—Data and prices on machinery to manufacture peanut oil, butter, flour, etc. (See Oil Presses.)

Peanut Flour Machinery.—Thomas Huston, Columbus, Ga.—Data on manufacture of peanut flour; use, demand, sales, etc.; prices on machinery.

Pipe and Casing.—Melvin, Engr., Lowther Oil & Gas Co., Leighton, Ky.—Prices on 2-in. to 10-in. pipe.

Pipe and Casing.—Chelsea-Ridge Oil & Gas Co., 509 Phoenix Bldg., Muskogee, Okla. Prices on following casing: 300 ft. 15-in., 800 ft. 12½-in., 2000 ft. 10-in., 6800 ft. 8½-in. and 10,000 ft. 6½-in. casing; also 5 mi. 2-in. line pipe; new; first-class second-hand, or used, in good condition.

Piping (Wrought-Iron).—Box 563, Newnan, Ga.—5 mi. 2-in. wrought-iron pipe; new or good second-hand; describe condition; price for export.

Photograph Films.—M. D. Kermalli, 303 Kiponda Road, Zanzibar, Africa.—Moving-picture films; 40,000 to 60,000 ft. long.

Plastering Materials.—Dept. of Justice, Office Supt. Prison, Washington, D. C.—Bids until May 21 for furnishing (at United States Penitentiary, Leavenworth, Kans.) plastering materials for 16,000 sq. yds. surface; specifications on application.

Pumping Equipment.—City of Charlotte, N. C., W. E. Vest, Supt. Water-works, Charlotte, N. C.—Bids from manufacturers of pumping equipment upon certain centrifugal pumping units for water-works; complete information and specifications from A. H. Wearn, Commr. of Public Works, or Anderson & Christie, Const. Engr., Charlotte; contract to be let as soon as reasonable time is allowed for filing of proposals.

Pumping Machinery.—See Dredging Contract, etc.—Veneer Mfg. Co.

Rails.—George Yampolsky, Box 305, Clarksburg, W. Va.—Dealers' prices (by wire or letter) on 12, 16 and 20-lb. rails. State quantity and condition.

Rails.—White Star Coal Co., W. L. Hammond, Gen. Mgr., White Star, Ky.—Prices on 50 tons 50-lb. new steel rail.

Rails, etc.—Harian Peacock Coal Co., E. L. Shell, Mgr., Pineville, Ky.—Prices on 10-lb. and 12-lb. steel rail; railroad spikes, bolts and splices for 80 and 90-lb. rail, for switch.

Revetment.—U. S. Engr. Office, Kansas City, Mo.—Bids until May 27 to construct 11,750 ft. revetment on Missouri River, 2 mi. from Machens; information on application.

Road Construction.—Craighead County, Lake City, Nettleton and Bay Road Improvement Dist. No. 1, E. E. Randolph, Secy. Dist. Commrs., Jonesboro, Ark.—Bids until May 24 to grade and pave 24.66 mi. of road with broken-stone paving (macadam), with bituminous surface treatment; also construct drainage, culverts and steel stringer bridges; excavation, 167,000 cu. yds.; pavement, 249,755 sq. yds.; asphaltic oil, 18,750 gals.; concrete culverts and bridge abutments, 1149 cu. yds.; steel I-beams, 101,640 lbs.; plans and specifications on file with State Highway Dept., Little Rock, and office of County Clerk, Jonesboro, and may be examined at Jonesboro office of Klyce & Kackley, Engrs., Berger Bldg., or copy may be obtained from engineers for \$15; engineers' main office, 505 Fourth and First Bank Bldg., Nashville, Tenn.

Road Construction.—Oldham County Fiscal Court, La Grange, Ky.—Open bids May 16 to construct 9 mi. water-bound macadam road; \$20,000 available; R. P. Neal, Engr., La Grange.

Road Materials.—Richland County Commissioner, A. Patterson, Jr., Chrmn., Columbia, S. C.—Bids until May 10 to furnish following materials and equipment for constructing road from Columbia to Camp

Jackson: 6000 tons sand; 6500 bbls. Portland cement; 5000 lin. ft. 2-in. pipe and connections (either new or second hand); concrete paving mixer—spout delivery, 15 cu. ft. capacity (either new or second hand); small force pump, steam or gasoline drive; either new or second hand; prices bid based on material and equipment f. o. b. Columbia; bidders on stone, gravel and sand to submit sample of material with bid.

Rubber Tire and Tube Machinery.—J. R. Alsing Engineering Co., Room 178, 50 Church St., New York.—Data and prices on complete plant (for export) for manufacture of rubber tires and tubes; capacity 50 of each, daily; price to include packing for export; and f. o. b. Dock, New York.

Safe.—See Bank Fixtures.—Bank of Laurel Fork.

Seating.—See Church Equipment.—F. H. Hendrix.

Sewing Machines.—See Automobiles, etc.—G. Vincent & Cie.

Sewer Construction.—City of Greenville, S. C., W. F. B. Haynsworth, City Engr.—Bids until May 14 to construct sanitary sewer extensions; 9000 lin. ft. 8-in. sewers, with manholes, castings, cast-iron pipe, etc.; plans and specifications on file with City Engr.; H. C. Harvley, Mayor.

Sewer Construction.—Sewerage Comsn., Camden W. Ballard, Clerk, Shelbyville, Ky.—Bids until May 29 to construct 15,000 ft. 6 and 8-in. sanitary sewers and a sedimentation tank; plans and specifications and bidders' instructions, etc., at office of Comsn., Shelbyville, and of Chas. E. Collins, Const. Engr., Drexel Bldg., Philadelphia, Pa.

Sewer Construction.—City of Tulsa, Okla., Frank Newkirk, City Auditor.—Bids until May 13 to construct sanitary sewer system for Sewer Districts, Nos. 15 and 130; plans, specifications, etc., on file with City Engr.

Steel (Reinforcing).—Estes W. Mann, Archt., Bank of Marianna Bldg., or Judge J. A. Plummer, Marianna, Ark.—Prices on reinforcing steel for \$12,000 jail building.

Steel Bunks.—Estes W. Mann, Archt., Bank of Marianna Bldg., or Judge J. A. Plummer, Marianna, Ark.—Prices on steel bunks for \$12,000 jail building.

Steel, Pipe, Boiler Tubes, etc.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until May 27 to furnish steel, wrought iron or steel pipe, boiler tubes, terne plate, sheet lead, bronze, iron or steel chain, wire rope, manila rope, oats, anthracite coal, fire-brick, borax, cotton caking, asbestos packing, wood alcohol, castor oil, fish oil, linseed oil, drier, enamel, lacquer, gum shellac, Venetian red and lumber; blanks, etc., relating to circular (No. 1218) obtainable at this office or offices Asst. Purchasing Agents, 24 State St., New York; 606 Common St., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices in principal cities throughout United States.

Structural Steel.—Frank R. Watson, 1211 Walnut St., Philadelphia, Pa.—Prices on structural steel for 50x80-ft. parish-house at Norfolk, Va.

Tank Automatic Device.—Miami Land & Development Co., Tatum Bldg., Miami, Fla. Addresses of manufacturers of automatic device to be connected to tank for watering hogs.

Threading and Cutting Machine (Pipe).—York River Shipbuilding Corp., West Point, Va.—Prices on second-hand pipe threading and cutting machine, maximum capacity 6 in.; power or hand machine; power preferred.

Trucks (Factory).—Union Brokerage Co., High Point, N. C.—50 factory trucks.

Typewriters.—See Automobiles, etc.—G. Vincent & Cie.

Vault.—See Bank Fixtures.—Bank of Laurel Fork.

Watering Troughs.—See Tank Automatic Device.

Water Wheels.—R. O. Blanchard, Gliden, N. C.—Data and prices on electric water-power and electrical machinery.

Welding Machinery.—J. D. Wyrick, Bear-den, Tenn.—Prices on welding machine for cast-iron, steel, etc.

Window Guards (Steel).—Estes W. Mann, Archt., Bank of Marianna Bldg., or Judge J. A. Plummer, Marianna, Ark.—Prices on steel window guards for \$12,000 jail building.

Wire (Copper).—White Star Coal Co., W. L. Hammond, Gen. Mgr., White Star, Ky.—Prices on 5000 ft. 4-0 plain copper wire.

Woodworking (Chair) Machinery.—Union Brokerage Co., High Point, N. C.—Chuck; mortiser; bending machine; multi-boring machine.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Anniston.—Anniston business men have appointed W. H. Weatherly, W. H. McKleroy, Joseph Saks, Ross Blackmon and L. L. Crump as a committee to organize a railway company to build an electric or gas-electric railway from Anniston to Camp McClellan and it is stated that \$30,000 of the \$100,000 sought have been subscribed.

Ala., Sylacauga.—Contract has been let to W. T. Taylor & Sons for building railroad to timber lands in Coosa County, owned by the Wisconsin-Alabama Lumber Co., of which Edward J. Young, Madison, Wis., is Pres.

Ala., Sylacauga.—Contract has been let to W. T. Taylor & Sons for building railroad to timber lands in Coosa County, owned by the Wisconsin-Alabama Lumber Co. Grading is expected to be completed by June 1 and construction will be rushed. The company will also handle freight and passengers.

N. C., Sunburst.—Railroad extension from Sunburst is not to be built by the Tennessee & North Carolina Railroad, but the Champion Lumber Co., which is building its logging lines, farther into spruce timber lands, employing U. S. Army engineers and soldiers for this construction, according to a letter to the Manufacturers Record.

Okla., Pawhuska.—Reported extension of Santa Fe lines from Caney, Kans., via Pawhuska to Cushing, Okla., refers to construction previously reported of line from Owen to Fairfax Junction, Okla., which, connected up with existing lines, will make through route described. Line already partly graded between Owen and Pawhuska.

Va., Fredericksburg.—U. S. War Department will spend \$175,000 to build railway in connection with naval proving grounds on Persimmon Point, in King George County, 20 mi. from Fredericksburg.

STREET RAILWAYS

N. C., Wilmington.—Tidewater Power Co. has applied to the city council for authority to extend its railway lines on South Front St. to the city limits, and to build a connecting track on Third St. Hugh McRae is Pres.

INDUSTRIAL NEWS OF INTEREST

General Warehouse Service.

The Commercial Warehouse Co. has been recently organized and established at Baltimore to provide accommodation for some of the freight removed from public warehouses by the Government. It was formed by H. W. Knouss and J. H. Gessford, formerly warehouseman and agent, respectively, of the Canton Railroad, for the Canton Company of Baltimore, and it has several warehouses, viz.: One on Ridgely St. (formerly the Mount Vernon Brewery property); at Block Street Wharf, and at Guilford Ave. and Pleasant St. There is a foreign department under the supervision of W. M. Hurley, who recently resigned from a position with the foreign freight agency of the Baltimore & Ohio Railroad, with which he was connected for 20 years. There is also a special department for weighing and sampling various commodities stored either in the company's warehouses or elsewhere. In fact, the business includes the extension of service of any kind to out of town importers and exporters.

Mattress Makers' Directory.

Dockham's Mattress Manufacturers' Report and Directory for 1918 has been issued. It gives the names and addresses of individuals, firms and companies in this line of business all over the United States. They are arranged alphabetically by States and cities respectively, so that reference is quick and convenient. In very many instances the number of sewing machines operated by a plant is given. The book is well printed on heavy paper. It is issued by the Dockham Publishing Co., 6 Beacon St., Boston, Mass.

Doubles Its Capacity.

It was recently announced that the H. Koppers Company would build for the Indiana Coke & Gas Co. of Terre Haute, Ind., an addition to its present by-product coke plant, to consist of fifteen Koppers ovens. Since then the Coke & Gas Co. has decided to build an addition of thirty Koppers ovens, which will double the capacity of the plant and will result in increasing the production of toluol and ammonia for the Government.

Classified Opportunities

VACUUM DRYING

EXPERIMENTAL work in vacuum drying. Why not try it for your products? Write for information. Frederick J. Maywald, Consulting Chemist, 89 Pine St., New York.

LOCATION WANTED

WANTED—Factory site along railroad in Pennsylvania for manufacturing boilers, tanks and smokestacks. Correspondence solicited from chambers of commerce. Address No. 5080, care Manufacturers Record.

INDUSTRIES WANTED

INDUSTRIAL LOCATION OFFERED.—Poughkeepsie, New York, offers to iron or steel industries engaged in United States government work splendid opportunity for Eastern Seaboard location. Several plants adequate to meet demands of iron or steel work available; skilled labor guaranteed; banking facilities above average; unlimited electric power with graduated scale; New York Central and Central New England railroads; bridge connection over Hudson with West; river transportation to New York. Write Chamber of Commerce for complete data.

FACTORY SITES

BALTIMORE FACTORY AND TERMINAL SITES.—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements.

"OUR MOTTO":
FACTORY AND TERMINAL SITES
IN BALTIMORE.
Wm. B. Martien & Co.
Sixth Floor, Lexington St. Bldg., Balto., Md.

OPPORTUNITY FOR SHIPBUILDING PLANTS AND FACTORIES OF ALL KINDS.—Have a syndicate offering to co-operate with any legitimate industrial that wants to locate where they can get rail and water transportation under the most favorable conditions for labor and the assembling of raw materials. In answering please state plainly your paid in cash capital, personnel, proposed plans, capital and property required, and labor used, with estimate of payroll. Box 161, Petersburg, Virginia.

FOR SALE—10 acres, fine for factory; electric power, 1100-foot railroad frontage, abundance of water. No better location for factory site in the City of Roanoke. Factory Leasers, Roanoke, Va.

INDUSTRIAL PLANTS FOR SALE

WOOLLEN MILL

FOR SALE—One set woolen mill in Middle Tennessee. Machinery consists of: 1 Picker; 1 First and Second Breaker Cards on Wood Frame, cards 26" wide; 1 Side Wind-up Attachment to second breaker; 1 Condenser, 36" wide for roving, metal frame; 1 Hand Sack, 180 Spindles; 2 48" Looms; 1 Cloth Shearer; Gasoline Engine of sufficient power to handle the machinery in good shape. Machinery is in good condition, except card clothing and belts. Has been run as a custom mill, and was operated last year. Engine is practically new.

More than 100,000 lbs. of wool produced annually within a 30-mile radius of the mill. Located 14 miles from railroad on good pike, with double daily automobile and auto-truck service. Terms, cash, or one-half cash; balance one year. Address No. 6005, care Manufacturers Record, Baltimore, Md.

COTTON MILL

SPLENDID SOUTHERN COTTON SPINNING MILL FOR SALE.—Notwithstanding we have the most profitable orders we ever had booked, and are and have been making excessive profits, for personal reasons only we are willing to sell our mill property, consisting of some twenty acres, two substantial brick factory construction buildings containing nearly 20,000 modern spindles running on high-grade yarns, competing against best Eastern yarns. Buildings and machinery up to date and in first-class order. Ample land for buildings for enlargement or for knitting or weaving machinery if prefer to put present product into knitted or woven fabric. Owners wish to retire, as their trained and intended successor has gone to serve his country. Mill can be seen in full operation. For further particulars apply to No. 6005, care Manufacturers Record, Balto., Md.

MACHINE SHOP

FOR SALE—Reason, death of owner. 1 5B Becker-Brinard Universal milling machine; 1 Shomaker-Boye engine lathe, 2x6 ft., change gears, steady rest; 1 36-in. drill press, with tapping attachment complete; tools, engines, capstans and other things. Excellent location for continuance of business, with well-established trade. Mrs. Minnie B. Morel, Admr., Franklin, Va.

INDUSTRIAL PLANTS FOR SALE

LAUNDRY

A ONCE-IN-A-LIFETIME chance to buy an old-established money-making laundry in the fastest growing, liveliest city in the South. The city with a payroll of a million a week. Owner retiring on account of health. Full details by addressing No. 5086, care Manufacturers Record, Balto., Md.

PLANING MILL AND LUMBER YARD

FOR SALE—Large planing mill and retail lumber yard, on railroad, complete machinery, and doing \$225,000 annual business. Good, responsible customers. Owner wishes to retire on account of ill-health. P. O. Box 596, Buffalo, N. Y.

FOUNDRY AND MACHINE SHOP

FOR SALE—Up-to-date foundry and machine works in good district. Plenty of business. Reason for selling, other business requires owner's attention. Address Box 325, Lakeland, Fla.

MANUFACTURING PLANT

MANUFACTURING PLANT.—Substantial brick buildings, ideally located. Approximately 45,000 square feet floor space. Private switch. Will sacrifice for quick sale. The Clifton Pratt Co., Cincinnati, Ohio.

ICE PLANT AND CREAMERY

FOR SALE—10-ton ice plant and creamery; ice sells at 50c. to 60c. per hundred; no competition; owner has other business. Apply A. O. Berglin, Fairhope, Ala.

AGENCIES WANTED

WANTED—Well advertised lines of heavy hardware to carry to the jobbing trade in Southern territory. Can furnish best of reference. Address No. 5067, care of Manufacturers Record, Baltimore, Md.

MECHANICAL ENGINEER will negotiate with manufacturers of machines or power-house equipment, with a view to representing them in the South, with headquarters in North Carolina. Address No. 6008, care Manufacturers Record, Baltimore, Md.

SITUATIONS WANTED

SALES ENGINEER.—Member American Society Refrigerating Engineers, thoroughly familiar with Corliss engines, power plants, refrigerating plants, oil engines. A man with unbounded energy and enthusiasm, splendid health and vigor, now holding responsible position, desires to make a change. Can handle both men and machinery to get results. Willing to go anywhere. Would prefer connection, if possible, where services would be of some value, directly or indirectly, to our country in this time of trouble. Give full information and name time and place for personal conference in first letter. Address No. 5086, care Manufacturers Record, Balto., Md.

WANTED—Position as Engineer-Supt. Construction; college graduate; 12 years' practical experience engineering and contracting work, railroad, municipal highway and drainage; present employed, but must have change from present location; prefer Canada or Western country; can furnish A No. 1 reference to ability and character; married; 37 years old. Address No. 6002, care Manufacturers Record, Balto., Md.

WANTED—By a hardware and mill supply salesman, with 20 years' experience, position as manager of hardware business or as traveling salesman for wholesale hardware, mill supply or plumbing house. At present connected with one of the largest supply houses in the South, but wish to make a change. Can give A-1 references. Address No. 5100, care Manufacturers Record, Balto., Md.

OWING to Government's abolition of railroad offices, two general agents, with 20 years' experience soliciting in Pittsburgh territory, desire to represent reliable manufacturers. References guaranteed. Address Agents, 1017 Bessemer Bldg., Pittsburgh, Pa.

CHIEF ENGINEER, thoroughly conversant with the operation of steam-electric plants. Able to design or rebuild with a view toward economical operation. E. E. Webb, 5142 Fulton Street, Chicago, Illinois.

ELECTRICIAN, experienced in A. C. and D. C. construction and maintenance. Familiar with turbines and stationary engines, also telephone systems. J. B. Northrop, Fort Smith, Ark.

MEN WANTED

IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such positions; executive, administrative, technical, professional; all lines. Not an employment agency; undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bixby, 354-46 Niagara Street, Buffalo, N. Y.

MEN WANTED

PROMINENT CONCERN with established trade desires strictly comm. representative in Southern States east of Mississippi River to call on hardware, jewelry, sporting goods and pawnbroker trade selling established line of dog collars, pistol holsters, police bills, etc. A good line for the right man. Address No. 5101, care Manufacturers Record.

MANUFACTURERS' AGENT wanted to sell a line of high-grade specialties for a concern of thirty years' reputation. Liberal commission basis. The Monitor Oil Company, Cleveland, Ohio.

BOATS FOR SALE

FOR SALE—Gasoline cabin launch, 30 ft. long. Good condition; full equipment. With or without motor. Half original cost. Leaving seaport. L. B. Pearce, Wilmington, N. C.

SCHOONER FOR SALE—98 ft. keel, 22 ft. beam, 5½ ft. draught. Also one 12x14 Sutton marine engine. W. P. Kavanaugh, Bay City, Mich.

MACHINERY AND SUPPLIES

FOR SALE—1 15x20 Atlas Side Crank Engine; perfect condition; complete without foundation bolts, \$350. 1 5 H. P. Steam Turbine, \$50. 1 5 H. P. upright Engine, \$50. 1 24-in. Mason Steam Trap, \$50. 2 6x10-ft., 12-inch wheels, Transfer Cars for dry kilns trucks, \$25 each. Price f. o. b. cars here. H. L. Beck, Lexington, N. C.

FOR SALE—1 Baldwin Locomotive, 30-ton, 1 Porter Saddle, 4-driver, 14-in. cyl. 1 30 H. P. Schofield Return Tubular Boiler, 1 30 H. P. Fire Box Boiler, 1 2-12 Beck Twin Engine, 1 Edger, 1 Sawmill, 8000 capacity, 1 Stave Mill, 1 Green River Pump, 1½-in. discharge, 2-in. lift, 1 Boiler, 10 H. P., 1 Sawmill, complete, 12,000 capacity. Box No. 8, Inglis, Fla.

FOR SALE—Complete six-ton daily capacity refrigerating plant; York machine, with ammonia receiver; Goulds Triplex pump and 15 H. P. motor with slide rails, 900 R. P. M., 220-volt, 2-phase, 60-cycle; induction motor; coils and pipe and tank. Price, \$1800. Value today, over \$3000. Val Fink Co., 147 Seventh Ave., New York City.

MACHINERY AND SUPPLIES

WIRE ROPE.—Immediate shipment standard sizes and quality. Send us your requirements and we will quote. B. L. Bevington Machinery Co., 555 Washington Boulevard, Chicago, Ill.

250 H. P. Allis-Chalmers cr. compound non-condensing engine, direct connected to 200 K. W. Bullock D. C. generator, 240 volts, 125 R. P. M. Complete with switchboard. In good running order. A. Courchesne, El Paso, Tex.

FOR SALE—Chambers brick machine with automatic cut-off and pug machine, 15-foot fan and heating coils for drying. T. L. Montague, 122 W. 8th St., Chattanooga, Tenn.

FOR SALE.
One new \$100-gallon steel oil tank.
O. S. Richardson Milling Co.,
Rome, Ga.

FOR SALE—Vulcanizing plant cheap. Haywood, model K, complete; good as new. Cost \$485 at factory; will take \$225 cash. Deming Vulc. Co., 113 W. Pine St., Deming, N. M.

FOR SALE—45 H. P. International Tractor, also 2 Trailers; all practically new; cheap. Address Box 54, Edenton, N. C.

FOR SALE.
Up-to-date machinery in 75-bbl. flour mill. Liberty Mills, Roanoke, Va.

HOLT Caterpillar, 60-hp 40-drawbar horse-power, excellent condition for immediate service; \$1750 cash; snap. Miller Lumber Company, Millerton, McCurtain Co., Okla.

FOR SALE—88½-ft. 26" 10-ply canvas belt; big bargain. 65 H. P. boiler and 32-inch steel smokestack, 65 ft. long. Address No. 5070, care Manufacturers Record, Balto., Md.

MACHINERY and SUPPLIES WANTED

ELECTRIC FURNACE WANTED.—Second-hand or new, if for immediate delivery, suitable for making ferro alloys. Send complete specifications, detailed statement of condition and price. Address No. 5073, care Manufacturers Record, Balto., Md.

WANTED—A second-hand 100 H. P. boiler to carry 125 lbs. steam. Must be in good condition and not have to be refired. H. H. Etheredge, Saluda, S. C.

To Our Advertisers

We Ask Your Co-operation

Owing to the labor shortage and the uncertainty of the mails at this time, we ask your co-operation in sending in advertising copy and cuts. It is our aim to give you the best service possible—submitting proofs and making changes whenever requested—but due to the unusual conditions to-day, it is necessary for us to strictly observe the following "Closing-down Dates."

When proofs of advertisements are required, copy and cuts must be in our hands two weeks in advance of date of publication and approved proof back one week in advance at the latest.

When proofs of advertisements are not required, copy and cuts must be in our hands one week in advance of date of publication.

Advertisers are requested to observe the necessity of having copy in our hands in ample time as stated above, to the end that advertisements may always receive proper classifications and be inserted in the issue for which they are intended.

MANUFACTURERS RECORD,
BALTIMORE, MD.

Published Every Thursday

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close May 27, 1918.

PROPOSALS FOR STEEL, WROUGHT
Iron or Steel Pipe, Boiler Tubes, Terne Plate, Sheet Lead, Bronze, Iron or Steel Chain, Wire Rope, Manila Rope, Oats, Anthracite Coal, Fire Brick, Borax, Cotton Calking, Asbestos Packing, Wood Alcohol, Castor Oil, Fish Oil, Linseed Oil, Drier, Enamel, Lacquer, Gum Shellac, Venetian Red and Lumber. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock A. M. May 27, 1918, at which time they will be opened in public, for furnishing the above-mentioned articles. Plans and information relating to this circular (1218) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 606 Common Street, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer offices in the principal cities throughout the United States. A. L. FLINT, General Purchasing Officer.

Bids close May 31, 1918.

TREASURY DEPARTMENT, Supervising
Architect's Office, Washington, D. C., May 2, 1918.—Proposals will be opened in this office at 3 P. M. May 31, 1918, for the construction, complete, of six additional buildings, water tank and wellhouse at the United States Quarantine Station, Savannah, Ga. Drawings and specifications may be obtained from the custodian at the station, or at this office, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close May 27, 1918.

TREASURY DEPARTMENT, Supervising
Architect's Office, Washington, D. C., April 27, 1918.—Proposals will be opened in this office at 3 P. M. May 27, 1918, for the construction, complete, of five additional buildings and repairing the attendants' quarters at the United States Quarantine Station, Reedy Island, Del. Drawings and specifications may be obtained from the custodian at the station, or at this office, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close May 13, 1918.

\$18,000 5% Bonds

City of Quincy, Florida, offers for sale to the highest and best bidder for cash, serial bonds of said city in the sum of eighteen thousand dollars, payable May 1, A. D. 1936, bearing interest at rate of 5% per annum, said interest payable semi-annually on the first day of May and the first day of November of each year; bonds to be in the denomination of \$500, two of which, to be determined by the City Council of said city by lot, shall be retired on the 15th day of May of each and every year after the year A. D. 1918.

Sealed bids for the purchase of said bonds will be received at the office of City Clerk of the City of Quincy, Florida, until 11 o'clock A. M. May 13, 1918, and each bid must be accompanied by a certified check for 10 per cent. of the par value of the bonds bid for, as evidence of good faith of the bidder, and to pay all damages the said City of Quincy may sustain on account of the non-compliance of the bidder with the terms of his said bid. The City of Quincy reserves the right to reject any and all bids, and no bid will be accepted for less than the par value of said bonds.

CITY OF QUINCY.

By W. E. SHELFER,

President City Council.

J. P. SMITH,

City Clerk.

Pumping Equipment

Charlotte, N. C.

Proposals are invited from manufacturers of pumping equipment by the City of Charlotte, N. C., upon certain centrifugal pumping units. More complete information, with specifications, can be obtained by applying to the office of the Commissioner of Public Works or that of the engineers. It is the desire of the city to place contracts for necessary improvements as soon as reasonable time is allowed for filing of proposals.

A. H. WEARN,

Commissioner Public Works.

W. E. VEST,

Superintendent Waterworks.

ANDERSON & CHRISTIE, INC.,
Consulting Municipal Engineers,
Charlotte, N. C.

Bids close May 29, 1918.

Sewers and Sewage Sedimentation Tank

Sealed proposals for the construction of about 15,000 feet of 6 and 8-inch Sanitary Sewers and a Sewage Sedimentation Tank will be received by the Clerk of the Sewerage Commission of the City of Shelbyville, Kentucky, at the office of the Commission until 1:30 P. M. May 29, 1918, at which time and place the proposals will be opened and publicly read. Copies of the plans and specifications may be seen and copies of the instructions to bidders and proposals may be obtained by contractors at the office of the Commission in the City of Shelbyville and at the office of Charles E. Collins, Consulting Engineer, Drexel Building, Philadelphia. The right is reserved to reject any and all bids.

By order of the Mayor and Sewerage Commission.

CAMDEN W. BALLARD,
Clerk of Commissioners.

April 26, 1918.

Bids close May 24, 1918.

Road Improvements

Jonesboro, Arkansas.

Sealed bids for the improvement of certain roads in Lake City, Nettleton and Bay Road Improvement District No. 1, Craighead County, Arkansas, will be received by the Board of Commissioners of said District at the office of the Secretary, Gregg Building, Jonesboro, Arkansas, until 2 P. M. May 24, 1918, at which time and place they will be publicly opened and read.

The work proposed consists of the grading and paving of approximately 24.66 miles of roads with broken stone paving (macadam) with bituminous surface treatment, together with the construction of the necessary drainage, culverts and steel stringer bridges.

The principal quantities are approximately as follows:

Excavation, 167,000 cubic yards; pavement, 249,755 square yards; asphaltic oil, 189,759 gallons; concrete culverts and bridge abutments, 1149 cubic yards; steel I-beams, 101,640 pounds.

Plans and specifications are on file at the office of the State Highway Department,

Little Rock, Arkansas; at the office of the County Clerk of Craighead County, Jonesboro, Arkansas, and may be examined at the Jonesboro office of the Engineers, Klyce & Kackley, Berger Building, or a copy may be obtained from the Engineers upon receipt of a deposit of \$15, of which amount \$10 will be refunded when the plans and specifications are returned in good order. If further information is desired, address the Engineers.

The right is reserved to reject any or all proposals and to waive informalities. The contractors will be paid cash on monthly estimates amounting to 85 per cent. of the work done.

All proposals or bids must be accompanied by a certified check drawn on a responsible bank or trust company and made payable to H. M. Johnson, treasurer, for a sum not less than \$15,000, except for those bidding on furnishing asphaltic oil only the check must be \$1000. The successful bidder will be required to furnish a performance bond in the sum of 50 per cent. of the contract price.

Bids received subject to approval of project by Government and sale of bonds.

E. E. RANDOLPH,

Secretary Board of Commissioners,
Klyce & Kackley, Engineers, 505 Fourth &
First National Bank Building, Nashville,
Tennessee.
March, 1918.

Excavation Contract To Let

Contract 2 or 3 years' excavation for dragline scraper, 2½-yd. bucket; good price paid for excavation; machine can be unloaded right at the work. Work ready to start now. Address

COLLINSVILLE COAL CO.,
General Delivery, Tulsa, Okla.

Bids close May 15, 1918.

Water-Works System

The Town Council of Brookville, Florida, invites bids for the construction of a municipal water-works system in said town. Bids will be opened at 8 o'clock P. M. on May 15, 1918, at the Town Hall. The Town Council reserves the right to reject any or all bids. Full details may be had by application to W. M. Russell, Town Clerk, Brookville, Fla.

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*If so, Let Our Readers Know It
through an advertisement in the*

Southern Shops Seeking Contract Work

Department of the

MANUFACTURERS RECORD

The Columbus Iron Works Co., Columbus, Ga., wrote us a short time ago, as follows

"We are pleased to advise that since running our ad. in 'Southern Shops Seeking Contract Work' department, we have all the work we can take care of for the next six months. It certainly pays to advertise."

If your plant is not running at full capacity an advertisement in this department of the MANUFACTURERS RECORD outlining your special facilities will put you in line of securing some of the profitable work which foundries and machine shops in other parts of the country are compelled to sublet because of the greatly overcrowded condition now prevailing.

In these times it is a vital economy of war to keep your plant operating on a 100% capacity schedule, and an advertisement in the MANUFACTURERS RECORD may bridge the gap between your present production and your possible production. Try it.

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